I DREAM
Research Journal
2017

Messages

Office of the Regional Director

One of the most important advocacies that drive our push for better basic educational outcomes in DepEd CALABARZON is the intensification of the culture of research.

In fact, we have conducted annual research conferences at various levels to provide opportunities for our fellow teachers and school officials to showcase their research initiatives. We have also been inspired to note that Schools Division Offices have been organising research meetings as well.

In addition, we are also intensifying efforts to publish research results in research journals. It is for this reason that I commend DepEd Imus City for publishing I DREAM Research Journal.

The researchers whose work will be featured in this journal likewise deserve our salute for demonstrating that passionate educators have time and energy to understand their craft better via systematic and critical inquiry.

May the Lord continue to bless our endeavors for transforming the youngsters we serve into responsible and productive citizens.

Mabuhay!

DIOSDADO M. SAN ANTONIO
Regional Director

Office of the Assistant Regional Director

I would like to congratulate the research team who fervently showed their dedication to this endeavor and the researchers who devoted themselves to come up with the significant contributions to Schools Division of Imus City reservoir of knowledge- I DREAM Research Journal.

DepEd CALABARZON fully supports activities that explore ways to improve the delivery of relevant and responsive basic education services to generations of Filipinos. As educators, we have this enviable duty of molding the minds of the youth so that they can become the realization of the dreams of our forefathers.

These research contributions would help the educators and para educators understand what works and why, what probably the implications of a certain phenomenon are, and identify the challenges at hand and their possible solutions. This journal denotes the soul of the division, as the researchers reflect the evidence-based and real-life situations of the school, its students, teachers, school heads and the stakeholders and its collaboration with the community.

As we encounter more complicated challenges in education, there is a need to encourage the teachers to engage in research, a primary tool in building knowledge and creating a higher level of teaching and learning. This initiative only implies that as we do now, we must have a group of potential educators and leaders who believe that there is always a better future if we realize the importance of research.

Mabuhay!!!

FRANCIS CESAR B. BRINGAS
OIC-Assistant Regional Director

Office of the SchoolsDivisions Superintendent

The Department of Education recognizes the skill of teachers in making innovations solely to improve the lives of learners which is one of the challenges that educators face today. Along this ultimate concern of the internal stakeholders, many still believe on the power of commitment to help alleviate the predicaments which need the attention of those who really care for the children.

Hence, we have this I DREAM Research Journal to give opportunities to the silent but creative minds to be heard and seen. This is the perfect venue to share brilliant ideas for everyone to take advantage of, for the benefit of the final recipients of the services that the Department of Education offers.

Indeed, there are a lot to be given focus on. School problems that need to be addressed continue to surge, but with undeniable teachers' ingenuity to look for causes and possible solutions, these things will no longer continue to hibernate in the four walls of the classrooms.

So, to the researchers of SDO Imus City, never cease with what you have started and altogether we hope to reap the fruits of your hard labor in the near future.

EDITHA M. ATENDIDO
Schools Division Superintendent
ASDS/OIC- Schools Division Superintenden

Office of the Assistant Schools Division Superintendent

It is with great pride, enthusiasm, and anticipation that I invite all of you to read the inaugural issue of the I DREAM Research Journal of the Schools Division of Imus City – a compendium of studies that will help in the continuous improvement of existing policies or programs in accessing basic education, delivery of quality education and governance in education.

An enormous amount of work has gone into the development of this journal and I believe that all of you will see that effort reflected in this inaugural issue and in the impact it will have on the field.

The Schools Division Research Committee through the help of the Division's Research Enthusiasts, Advocates and Mentors (DREAM) Team are a work in progress actively seeking ideas from schools through their teacher-researchers and community in terms of structure, goals, and vision. We remain open to where we are going and how we will get there.

As we look at I DREAM Research Journal, it is important to keep in mind that it represents the collective thinking of a group of creative and innovative individuals with whom I am privileged to work. We want I DREAM Research Journal to make a difference, not just in classrooms and schools but in communities as well.

Finally, I want to thank all the School Heads who encouraged their teacher-researchers to contribute studies to this journal that will serve as a method of scholarly communication. They make reciprocity a reality.

I look forward to our journey together as we develop the I DREAM Research Journal into its fullest potential.

God bless us all and more power!

LUALHATI O. CADAVEDO
Assistant Schools Division Superintendent
CES/OIC- Schools Division Superintenden

TABLE OF CONTENTS

Introduction to the Inaugural Issue of I DREAM Research Journal

Editorial Board
I DREAM Research Journal

Welcome to the inaugural issue of the I DREAM Research Journal, the official peer-reviewed academic journal of the Schools Division of Imus City published bi-annually. The publication is a compendium of interdisciplinary academic and research works of the different fields of specialization in the Schools Division of Imus City.

Articles and manuscripts were subjected to scholarly review by the editorial staff and at least three external reviewers who are experts on the specified disciplines. The different types of articles or manuscripts considered are: Original Full Academic and Original Action Research Papers. Research Papers with funding from international, national, regional and local institutions were given priority for publication.

Teacher-researchers explored the following themes:
1) Teaching and Learning; 2) Human Resource Development 3) Governance 4) Child Protection; and Cross Cutting Themes which include 1) Gender and Development 2) Disaster Risk Reduction Management and 3) Inclusive Education.

The I DREAM Research Journal will serve as a method of scholarly communication and aims to gather together and extend the profoundly interdisciplinary and growing field of the abovementioned themes and cross cutting themes, for which there is no existing journal in circulation in the Division.

The I DREAM Research Journal logo shows a wheel that contains the words ACCESSS, QUALITY and GOVERNANCE; the logo of the Schools Division of Imus City; and seven icons representing the vital 21st century skills that through research will transform the skills and competencies of the K to 12 teachers. These skills include collaboration and teamwork, creativity and imagination, critical thinking, problem solving, global and cultural awareness, information and technology literacy, and leadership. More so, inside the wheel, one can see a hand holding a mallet with the text I DREAM Research Journal. The logo signifies that the Imus City Division Research Enthusiasts, Advocates and Mentors (I DREAM) through its Research Journal continuously strive and commit themselves to hone and build a culture of research among the teaching and non-teaching

personnel of the Schools Division of Imus City, thus in order to deliver quality education to the 21st century learners and improve the access, quality and governance in education.

In the spirit of honing and building a culture of research in the Division, the editors of I DREAM Research Journal aim to do more than provide a home for creative and critical basic education studies scholarship. We want to provide researches that are reflexively constituted through its educational reforms.

Issue No. 1

The **I DREAM v inaugural issue** captures our vision of encounters between theory, teaching and learning and governance.

Teachers' Response to Intervention for Students-at-Risk: Basis for a Proposed Action Plan by Mr. Joseph R. Carreon from General Emilio Aguinaldo National High School (GEANHS) aimed to determine the common problems encountered by students-at-risk; the prevalent teachers' response to intervention and teachers' level of practice in response to intervention for students-at-risk which will serve as a basis for identifying strengths and weaknesses of the teachers' response to intervention leading to a proposed action plan using a descriptive research design.

Mr. Jaypee M. Limueco's study also **from GEANHS** entitled **Impact of Using Peer Instruction and PhET Simulations on the Motivation and Physics Anxiety of Grade 9 students** focused on the impact of Peer Instruction and PhET Simulations on the level of motivation and Physics anxiety of Grade 9 students. It was concluded that Peer Instruction and PhET simulation helped in alleviating motivation of students and minimizing their anxiety towards Physics.

The Use of Cooperative Learning in Teaching Mathematics to Improve the Academic Performance of Selected Grade 7 Students in GEANHS S.Y.2015-2016 by Ms. Nessa Amie P. Lope who is currently teaching at **Gen. Flaviano Yengko Senior High School**

(GFY SHS)) investigated the use of cooperative learning in teaching Mathematics to improve the academic performance of the selected Grade 7 students in General Emilio Aguinaldo National High School, S.Y. 2015-2016. As revealed by the result of the administered teacher-made test, the group taught in Mathematics with the use of cooperative learning improved more than the students taught without the use of such strategy.

Assessment of Project GUIDE in Improving National Achievement Test (NAT) Performance in Araling Panlipunan of Grade 10 Students by Mr. Randy C. Pantaleon of Imus National High School (INHS) –Main determined the factors that predict the students' performance in Araling Panlipunan and National Achievement Test at INHS.

Evaluation of the Discipline Action Committee System (DACSY) of Gov. Juanito Reyes Remulla Senior High School (GJRR SHS) by Jocelyn C. Miñano from GJRR SHS aimed to realize whether the use of Discipline Action Committee System (DACSY) could possibly minimize the workloads of its members in recording, updating, and double-checking of misdemeanor data of its students.

Mental Ability, Career Interest, and Academic Performance: Basis for Career Placement Program among Senior High School Learners by Ms. Ruby B. Heramia and Madeleine C. Ayo from GFY SHS identified if there is a relationship between academic performance and mental ability; and, academic performance,

and career interest in which the data were the bases for the career placement program.

Causes of Absenteeism Among Grade Six - Pupils of Alapan I Elementary School by Ms. Gemma P. Sierra, currently the Teacher-In-Charge at Estanislao Villanueva Elementary School investigated the causes of absenteeism of grade six pupils to prevent absences which can really affect scholastic performance.

T**eachers' Attitude towards Action Research: A Factor In The Development Of Training Program by Ms. Jocelyn T. Aquino of Bukandala Elementary School** focused on teachers' attitudes towards action research. It was concluded that teachers have positive attitudes towards action research and with most agreement on statements related to awareness of action research and least agreement on resource utilization and availability.

Motivational Factors of Tenured Teachers and School Heads of Department of Education (DepEd) Schools Division of Imus City, Cavite, Philippines to conduct academic research by Dr. Lualhati O. Cadavedo, Mr. Gregorio A. Co Jr., Ms. Matea Alvyn H. Trinidad and Ms. Jenielyn A. Sadang of the Schools Division of Imus City determined the relationship between the socio-demographic characteristics of the respondents and their motivational factors in conducting academic research.

We are delighted to be able to share this first issue of I DREAM Research Journal and look forward to future exchanges and collaborative futures.

The journal is intended as a meeting place in which continuous improvement advocates and educational reform beings and doings of teaching and learning, human resource, governance, and child protection studies and practice meet and, by doing so, are on- goingly transformed. We hope you will join us in making these transformations into material realities.

Schools Division Research Committee (SDRC) and
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Research Journal

TEACHERS' RESPONSE TO INTERVENTION FOR STUDENTS-AT-RISK: BASIS FOR A PROPOSED ACTION PLAN

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Abstract

The study aimed to determine the common problems encountered by students-at-risk; the prevalent teachers' response to intervention and teachers' level of practice in response to intervention for students-at-risk which will serve as a basis for identifying strengths and weaknesses of the teachers' response to intervention leading to a proposed action plan using a descriptive research design. A modified self-made questionnaire served was used to gather data and analyzed using frequency percentage and mean. The study involved 37 teachers in Technology and Livelihood Education Department of General Emilio Aguinaldo National High School. The study revealed that the top 3 common problems of students-at-risk were family problems, absenteeism and difficulty in understanding the lessons. Teachers' mentoring, remedial, activity sheets and laboratory activities were prevalent response to intervention. Results also showed that fairness in the conduct of intervention was perceived as very high practiced. And the present practices of the teachers is high with a mean ranging from 3.41-3.40 on the following indicators: providing appropriate intervention strategies and activities;

performance monitoring and feedbacking; utilizing available technology and creating engaging environment; and showing patience to students and aligning lessons based on the curriculum. It was suggested, however, to increase the level of practice on conducting home visitation and the use of various available community resources and pedagogical delivery.

Keywords: *Action Plan, Capacity Building, Intervention, Learners-at-risk, Levels of Intervention, Overarching goal*

Introduction

The future generation is envisioned as nation-builders and leaders. Education is constantly the foremost instrument by which people become empowered and the economic, social and personal well-being of all the citizens in a pluralistic society escalate. Education has always been strongly viewed as a pillar of national development and a primary avenue for social and economic mobility (EFA and MDG, 2015). Survey showed one in every ten or about 4 million children and youth was out-of-school. One in every 10 Filipino children and youth 6 to 24 years old was out-of-school. In CALABARZON, 9.7% of population 6 to 24 years old are out-of-school (FLEMMS and PSA, 2013). The term at-risk is used throughout public school systems across the country. For instance, many characteristics can be used to identify a student as at-risk such as emotional, psychological, physical, and home-related factors that leads them to dropout. Most often, students considered at-risk would not meet marginal standards on various as-

sessments. At-risk students show persistent patterns of under-achievement and of at-risk in school, leading to their failure to finish high school. Guidelines and procedures on the management of learners-at-risk are normally implemented in school educational program aimed to intervene and monitor the performance of individual students who are at-risk or students with learning difficulties towards continuous improvement and achieve best practices (DepEd Order No. 18, s. of 2015).

Successful educators strive to support all learners to achieve high standards and reach their potential. The provision of high quality curriculum increase intensive and targeted learning opportunities that enable learners to maximize their progress towards agreed standards (Department of South Australia, 2011). Managing remediation activities plays an important role in pedagogy to improve learner's performance. Efforts to lower the dropout rate represent a constant struggle for administrators as they press to implement plans for teachers' development programs with regard to effective intervention mechanisms that will help engage students and encourage them to reach their full academic potential. Factors identifying at-risk students have significant impact on the academic achievement of individual students and school metrics. Establishing community partnerships can provide support to school and families to develop relationships with all stakeholders to prevent students from dropping out (Worley, C. L. 2006).

(Ragan, et. al 2015) explored elementary and secondary educators' perceptions of their school district's responsiveness to intervention initiative. Teachers and administrators were surveyed regarding the perceived

feasibility and effectiveness of educational practices that are inherent within response to intervention model; perceived knowledge of basic RTI concepts, and perceived preparedness to implement specific components of RTI within their school district.

The alarming number of students failing grades and dropouts in the school triggered the researcher to conduct the study among Technology and Livelihood Education teachers of General Emilio Aguinaldo National High School wherein during school year 2014-2015, of 8224 total number of students, 658 or 8% have dropped out. This study will enable school heads, teachers and future researchers to understand the common problems of students under intervention and teachers' practices in response to intervention for learners-at-risk. The findings and recommendations of the study will serve as ground basis towards effective intervention and empirical initiatives that will enhance teachers' response to intervention for learners-at-risk that will ensure lesser failing grades and possibly eliminate dropouts.

Methodology

This study utilized the descriptive method of research to determine the common problems encountered by the teachers to students-at-risk; the prevalent teachers' response to intervention and teachers' level of practice in response to intervention for students-at-risk at General Emilio Aguinaldo National High School during school year 2015-2016. A simple definition of descriptive study is a design for investigator to gather information about present existing conditions or the nature of a situation (Sevilla et.

al 1998).

The respondents of the study are composed of 37 teachers from Technology and Livelihood Education Department randomly selected and who were conducted interventions to students-at-risk during mentioned school year. The research used a modified self-made questionnaire. The first part of the questionnaire answers the different problems of the students encountered by the teacher respondents and the prevalent interventional practices. The second part of the questionnaire was modified from National Competency-Based Teacher Standards which pertains to the roles and responsibilities of the teachers performance, it answers the research questions regarding the level of teachers' practice on instructional competence in response to intervention for learners-at-risk. The questionnaire was validated by the school head to ensure that the questions were suitable to answer the research problem. The availability of the respondents was noted before administering the questionnaire.

The data gathered was analyzed through the use of qualitative design using frequency count, percentage weight and 5-point Likert Scale with verbal interpretation described as the following : 1 – Not Practiced (1.0-1.80); 2 – Less Practiced (1.81-2.60); 3 – Moderately Practiced (2.61-3.40); 4 – Highly Practiced (3.41-4.20) and; 5 – Very Highly Practiced (4.21-5.0).

No.	Common Problems	Frequency	Percent	Rank
1	Family problem	34	91.89	1
2	Absenteeism	32	86.49	2
3	Slow learner/Can't understand the lesson	30	81.81	3
4	Poor study habit	26	70.27	4
5	Extra-curricular related activities (ex. Athlete)	20	54.05	5
6	Working student	19	51.35	6
7	Tardiness/Late	18	48.65	7
8	Cutting classes	16	43.24	8
9	No interest to the subject	14	37.84	9.5
10	Illness/Sickness	14	37.84	9.5
11	Fond of playing electronic games	12	32.43	11.5
12	Drug addiction	12	32.43	11.5
13	Written construction/Spelling problem	11	29.73	13
14	Reading problem	10	27.03	14.5
15	Hot and Uncomfortable Classroom	10	27.03	14.5
16	Oral/Verbal sentence construction problem	9	24.32	16
17	Physical disability	8	21.62	17.5
18	Pregnancy	8	21.62	17.5
19	No assignment	7	18.92	19.5
20	Bullying	7	18.92	19.5
21	Mental disability	4	10.81	21.5
22	Vices (addicted to liquor/cigarette/ gambling)	4	10.81	21.5
23	Peer pressure/Mal fraternity involvement	3	8.11	23
24	Severe/Chronic disease	2	5.41	24
25	Regional differences/discrimination	1	2.70	26
26	Don't like the teacher/Intimidating teacher	1	2.70	26
27	No common friends in the class	1	2.70	26
28	Unsafe school vicinity/location	0	0	28

Results and Discussions

Table 1 indicates the percentage of the common or prevalent problems of student-at-risk. The data shows the five most common problems of students under intervention encountered by the teachers. Basically, family problems (91.89%) reveal as the most prevalent problem of the students why they undergo remediation and intervention. Followed by student absenteeism (86.49%) which is also highly associated with family problem on why student/s failed to go to school. On the other hand, despite of various pedagogical approaches of teachers, still slow learners (81.81%) is revealed as a student problem. Although, considering the researcher perception on the present educational scenario such as congestion and unconducive facilities, poor study habit (70.27%) of the students resulted them to undergo intervention. Finally, the extra-curricular activities (54.05%) of the students prompt them to undergo also a series of intervention after the particular activity and competition participated.

This implies that teachers encountered various problems of the students under intervention. Response to intervention is a necessary pedagogical mechanism that provides appropriate and differentiated learning activities, and a consistent monitoring and procurement for school-community resources for learners-at-risk to attain intended outcomes. These problems are necessities to address accordingly so that students will succeed in their schooling.

It is important to promote resilience in children as early as possible by utilizing the most effective intervention within the context of the child, family, school, and broader community (Condly, 2006).

No	Problems	Frequency	Percent	Rank
1.1	No allowance/pocket money	24	64.86	1
1.2	Broken Family	21	56.76	2
1.3	Lack of attention	18	48.65	3
1.4	No parent/Abandon	10	27.03	4.5
1.5	Decease family member or relative	10	27.03	4.5
1.6	No meals/Starvation	9	24.32	6
1.7	Parent/Guardian in jail	3	8.11	7
1.8	Physically abused	2	5.41	8.5
1.9	Victim incest/Sexually abused	2	5.41	8.5
1.10	Change in residence	5	13.51	1

Table 2: Family Related Problems

Based on the result of table 1, it implies that majority of the respondents said that family problem is the most common problem of students who undergo intervention. Particularly, (64.86%) pertains to no allowance or pocket money, (56.76%) due to having broken family and (48.65%) students are under intervention because of parents' lack of attention. This is followed by no parent/abandoned students and deceased family member or relative with both (27.03%). Among the 28 cited problems of the students, severe or chronic disease, regional difference/ discrimination, no common friends in the class, and don't like or intimidating teachers were the very least problems of students under intervention and unsafe school vicinity/ location is not pointed as a problem at all.

According to Valdonado (2001), youth-at-risk of drop-

ping out or those who have dropped out require a specialized set of interventions that address issues such as mobility and student engagement. Early tracking of youth at-risk of dropping out can be particularly useful.

No.	Interventional Method	Frequency	Percent	Rank
1	Mentoring/Tutorial	35	94.59	1
2	Activity sheet	23	62.16	2
3	Hands-on/Laboratory performance	21	56.76	3
4	Peer teaching	17	45.95	4
5	Modular approach	16	43.32	5.5
6	Teacher-parents internal arrangement	16	43.24	5.5
7	Project making	14	37.84	7
8	Home study	9	24.32	8
9	Subjected for non-formal education (ALS)	8	21.62	9
10	Special project	7	18.92	10
11	Home visitation	6	16.22	11
12	Online study	4	10.81	12
13	Research making	2	5.41	13.5
14	Subjected for summer class	2	5.41	13.5
15	Community service	1	2.70	15

Table 3: teachers interventional method

The result reveals that teachers are conducting various interventional methods for learners-at-risks. Based on the result, the mainstream of the respondents (94.59%) conducted mentoring or tutorial to students-at-risk as remedial intervention. (Coffman, 2009) pointed that the school-based mentoring intervention could make a positive impact on the academic and social outcomes for at-risk high school students. The mentoring intervention was

implemented during the regular school day and utilized school staff members in the role of mentors.

Besides, (62.16%) of the teachers gave activity sheets and hands-on/laboratory performance (56.76%) particularly those who were absent and slow learners using differentiated activities. This is followed by peer teaching (45.95%) where fast learners taught slow learners while pacing their lessons and modular approach (43.32%) for those students who could not go to school regularly and those who had family related problems and who were under suspension. On the other hand, the result reveals that the respondents need to be involved in home visitation mechanism to track those targeted students who were not benefiting to regular schooling due to different cited problems so that they could undergo series of remedial classes in order to be promoted to the next level. These students-at-risks are the ones resulting to dropout and need to be monitored and must engage in an alternative teaching-learning process at their own pace, time, and place.

According to Johnson and Mellard (2006) Response to Intervention (RTI) is a multi-tier method to the early identification of students' problem and to support of students with particular needs. Struggling learners are provided with interventions in cross-disciplinary approach pacing their own rate of learning. Progress monitoring is closely checked to assess the learning rate and the level of performance of students-at-risk ensuring that educational decisions about the intensity and duration of interventions are based on individual student response to intervention according to their speed, time and place.

Table 4: Teachers' level of practice in response to intervention

No	Indicators	Weighted Mean	Remarks
1	Provided intervention for students-at-risk.	4.027	HP
2	Provided appropriate intervention for students at risk.	3.973	HP
3	Conducted intervention program using appropriate strategy for students-at-risk.	3.7027	HP
4	Kept track learning performance for students-at-risk.	3.5135	HP
5	Kept track learning performance for students-at-risk.	4.027	HP
6	Appreciated the need to help diverse students-at-risk.	3.9189	HP
7	Showed fairness to all students-at-risk regardless of their socio-economic background.	4.4054	VHP
8	Prepared and utilized available technology like ICT and other instructional materials in designing teaching-learning activities appropriate for learners-at-risk.	3.8919	HP
9	Managed remediation program for students-at-risk.	3.8108	HP
10	Manifested enthusiasm in conducting remediation programs for students-at-risk.	3.8378	HP
11	Motivated learners-at-risk to attend remedial class and reflect their own learning growth.	3.8378	HP
12	Showed patience in conducting remediation activity for students-at-risk.	4.0541	HP
13	Monitored students-at-risk performance and learning growth.	3.8649	HP
14	Enthusiastically developed and used tools for assessing authentic learning for students-at-risk.	3.5405	HP
15	Consistently provided timely and accurate feedback of performance for students-at-risk.	3.7027	HP
16	Maintained accurate and updated records for students-at-risk.	4.1081	HP
17	Created an engaging environment for students-at-risk.	3.7027	HP

No	Indicators	Weighted Mean	Remarks
18	Conducted home visitation for students-at-risk.	2.3514	LP
19	Set objectives that are within the experience and capabilities of learners-at-risk.	3.3784	MP
20	Utilized blended learning techniques and activities suited to the different kinds of learners-at-risk.	3.4054	MP
21	Paced lessons appropriate to the needs and difficulties of learners-at-risk.	3.5676	HP
22	Delivered accurate and updated content knowledge using appropriate methodologies, approaches, and strategies for students-at-risk.	3.6216	HP
23	Aligned the lesson objectives, teaching methods, learning activities and instructional materials or resources appropriate for students-at-risk.	3.9189	HP
24	Engaged and sustained learners-at-risk interest in the subject by making content meaningful and relevant to them.	3.6757	HP
25	Used varied and available community resources (human or material) to support learning for students-at-risk.	3.3243	MP
	TOTAL	3.7265	HP

Legend: 4.21 – 5.0-Very Highly Practiced (VHP), 3.41 – 4.20-Highly Practiced (HP), 2.61 – 3.40-Moderately Practiced (MP), 1.81 – 2.60-Less Practiced (LP), 1.0 – 1.80-Not Practiced (NP)

The grand mean of 3.7275 indicates that the teachers' level of practice in response to intervention is on the extent of high practice. It implies that teachers are proficient in 20 indicators, ranges with a mean of (3.3784 to 4.1081) except for indicator 7, with a mean of 4.4054 which is very high practiced. "Showed fairness to all students-at-risk regardless of their socio-economic background". Moderately practiced indicators are: indicator 19 "Set objectives that are within the experience and capabilities of students-at-

risk with a mean of 3.3784; indicator 20 “Utilized blended learning techniques and activities suited to the different kinds of students-at-risk” with a mean of 3.4054; and indicator 25 “Used of varied community resources to support learning for learners-at-risk” with a mean of 3.3243. As shown in table 9, indicator 18 “Conducted home visitation for students-at-risk revealed as less practiced competency by the respondents with 2.3514 mean. The findings indicate dominant teachers interventional method yielded in table 8 that 6 out of 37 teachers only conducted home visitation.

It can be said that home visitation is an important mechanism to monitor students’ situation in their study and further intervene in order to derive with a concrete solution. According to Traci J. B. (2013) teachers need to use the best intervention strategies to help support all students. Intervention is a valuable part of our schools and differentiated instruction that allows students to control learning anytime and everywhere is vital to successful teaching. It is imperative that all students get the support needed for growth and achievement. The teachers’ response to intervention is embedded and foreseeable in standard educational practice as mandated by DepEd guidelines and professional ethics. The average weighted mean of teachers’ response to intervention for students-at-risk perceived as high practice. However, the teachers must authentically respond to intervention according to teachers’ standards as pronounced in the 21st century competency, that teachers must be highly proficient and effective in response to interventions.

Conclusion

The top 3 common problems encountered by students-at-risks are family problems such as no allowance, broken family and lack of attention. While the top 3 prevalent interventional practices of the teachers are mentoring students, activity sheets and hands-on or laboratory activities. While the teachers failed to conduct home visitation, this is because of workloads and time constraints to manage the conduct of home visits.

Teachers' response to intervention has very high practiced on showing fairness to all students-at-risk regardless of their socio-economic background. High extent of practice in providing intervention for students-at-risk use appropriate strategies and activities; track and monitor accurate feedback on learning performance and appreciate the need to help diverse students-at-risk. Moreover, prepared and utilized any available technology resources, enthusiastically developed tool in assessing learning and creating engaging environment; managed and maintained the conduct of remediation; motivated and showed patience to students to attend remedial class; and aligned lessons based on the standard principles of the curriculum. The used of various available community resources and blended learning remedial strategies to support within the experience and capabilities of learners-at-risk are moderately practiced by the teachers. Incorporating computer assisted instructions and blended learning enriched with the use of technology has been found effective to low performing students, allowing individualized learning which significantly improves achievement outcomes of students-at-risk. Inter-

vention outcomes rely on the efficiency and effectiveness of teachers on th e fidelity of implementation.

Recommendations

1. Teachers must conduct regular home visit for learners-at-risk in order to monitor students' background and must be pro-active and vigilant on the different problems of the learners in order to deliver immediate and proper response to interventions especially the top most common problems of students-at-risk.
2. Teachers should manage community resurces and build social capital.
3. Less practiced indicators must be part of teachers key result areas objectives prior Result-Based Performance Management System (RPMS) in order to work on their weaknesses and focus on improving performance.
4. For future study, researchers may include several dimensions in the fidelity of intervention such as: adherence of the policy, capacity building, instructional differentiation, customers' responsiveness and its relationship and difference.

PROPOSED ACTION PLAN

STUDENT AND TEACHER DEVELOPMENT

Goal: Teachers who are responsive, competent, collaborative, capacity building headed for holistic development and promoting quality education for the 21st century learners.

General Objectives: To enhance teachers' response to intervention that increase students-at-risk performance, competence, participation, responsiveness.

Area of Concern	Objectives	Strategies	Performance Indicator	Responsible Person for the Action	Timeline	Resources
Home Visitation	Adhere the DepEd Order No. 8 s. 2015, manage remediation through conducting home visitations to monitor and determine students-at-risk socio-economic background	Conduct persistent Home Visitation with allowable 1 to 2 hours as teaching loads	Students-at-risk should have visited and should passed the subject with 80% to 90%	Principal, Head Teachers, Advisers, Guidance Counsellor, Teachers, Parents, Students-At-Risk	Whole Year prior to 6 hours teaching loads	School Fund, Dept. Fund, Personal

Area of Concern	Objectives	Strategies	Performance Indicator	Responsible Person for the Action	Timeline	Resources
Family Related Problems	To track students-at-risk family problems that affects their studies and maximizes students-parents involvement and engagement in school-community activities	Conduct values formation and counselling activities for student-at-risk	Students-at-risk should have attended symposium and undergo school-based counselling	Principal Head Teachers, Advisers, Counsellor, Teachers, Parents Students-At-Risk	4 times every school year	School Fund, Dept. Fund Personal
		Maximize parents' involvement and parental guidance	Parents should have attended PTC have been involved in some school activities	Principal, Head Teachers, Advisers, Guidance Counsellor, Teachers, Parents, Students-At-Risk	Year Round	School Fund, Dept. Fund, Personal

Area of Concern	Objectives	Strategies	Performance Indicator	Responsible Person for the Action	Timeline	Resources
Personal and Professional Development	To enhance teachers' proficiency in their respective learning areas in providing, utilizing appropriate differentiated activities, design and techniques suited for diverse learners-at-risk To build professional links in keeping abreast with recent development in education and participate in various seminars and trainings	Manage accordingly supervision of classes and class observation Prepare innovativeand interesting remedial lesson, instructional materials and classroom activities appropriate for learners needs Conduct seminar-INSET related to teachers' empowerment on learner-centered pedagogy and inclusive education	Teachers lesson objectives should adhered within the experience and capabilities of students-at-risk Students-at-risk have involved and engage with various remedial/ reinforcement activities Faculty should have attended necessary and all required seminar and trainings prior to K to 12 curriculum Scholarship National Certificate Trainings should have granted to all teachers applicants	Principal, Head Teachers, Master Teacher, Teachers, Students-At-Risk EPS, Principal, Head Teachers, Master Teachers, Teachers	Whole Year Round During INSET and Mass-Training and Roll-out seminar	Dept. Fund, Personal School Fund, Dept. Fund, Personal

Area of Concern	Objectives	Strategies	Performance Indicator	Responsible Person for the Action	Timeline	Resources
Remedial Progress Monitoring	Consistently provide and maintain timely and accurate record and feedback for learners-at-risk	Consistently monitor teachers management in response to interventions	Teachers should have managed their response to interventions for learners-at-risk using (ITSI) and PTC anecdotal records)	EPS, Principal, Guidance Counselor, Head Teacher, Master Teacher, Teachers, Parents, Students	Whole Year Round	School Fund Dept. Fund Personal
School-Community Learning Service HUB	Engage and sustained learners-at-risk interest to the subject by making content meaningful, relevant, responsive to diversity and allows students to control learning on their own pace, time and place	Strengthen school-community partnership that will develop functional initiatives in mobilizing used of available school-community resources that support learning for student-at-risk	School - community collaboration that is functional and should have engaged learners-at-risk in blended learning mechanisms like ICT-based learning Hub/centers, Modular-Based on learning/study monitored specialized teachers and barangay staff executives	CID SGOD EPS, Principal, Guidance Counselor, Head Teacher, Master Teacher, Teachers, PTA Parents, Students	Whole Year Round	School / National Fund, LGU, NGO

Area of Concern	Objectives	Strategies	Performance Indicator	Responsible Person for the Action	Timeline	Resources
Remedial Program	To intensify particular or tired program for remedial instructions and intervention for different problems of students-at-risk to aid dropouts and failing grades and attain proficiency level	Sustainable development on teachers' empowerment and leadership training, seminars conduct to intervention Early and consistent tracking and monitoring students-at-risk progress Conduct of research	Remarkable improvement on dropout rate and achievement outcomes of students-at-risk Research based study on specific problem of students under interventions	EPS Principal Head Teachers, Advisers, Counsellor, Teachers, Parents Students-At-Risk	Whole Year Round	School Fund, Dept. Fund Personal

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IMPACT OF USING PEER INSTRUCTION AND PHET SIMULATIONS ON THE MOTIVATION AND PHYSICS ANXIETY OF GRADE 9 STUDENTS

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Abstract

This research focused on the impact of Peer Instruction and PhET Simulations on the level of motivation and Physics anxiety of Grade 9 students.

Two groups of students were used in the study. The experimental group involved 65 registered students while the control group has 64 registered students.

To determine the level of motivation of students in learning physics, the Physics Motivation Questionnaire was administered. On the other hand, to determine the level of Physics anxiety of the students in each group, Physics Anxiety Rating Scale was used. Peer Instruction supplemented with PhET simulations was implemented in the experimental group while the traditional lecture method was used in the control group. Both instruments were again administered after the implementation of the two different teaching approaches. “Wilcoxon Signed Rank test” was used to test the significant difference between pretest and posttest of each group. “Mann Whitney U” was used to test if significant differences exist between each group before and after instruction.

Results showed that there is no significant difference between the level of motivation and anxiety of the experi-

mental and control group before the implementation at $p<0.05$ significance level. It implies that the students have the same level of motivation and physics anxiety before instruction. However, the results of both tests have significant differences between the groups after instruction. It is also found that there is a significant positive change in the responses of the students in the experimental group while no change was evident on the control. The result of the analysis of the Mann Whitney U shows that the change in the attributes of the students is caused by the treatment. Therefore, it is concluded that Peer Instruction and PhET simulation helped in alleviating motivation of students and minimizing their anxiety towards Physics.

Keywords: *Peer Instruction, motivation, anxiety*

Introduction

As a science teacher, it is imperative to give attention not only on students' intellectual aspects but on their affective domains as well. Many teachers teach physics considering only the cognitive aspect of the students. However, emotion, motivation and commitment should also be given proper attention (Ngiam, 2006). Both intellectual and affective domains of a student greatly contribute on his/her performance inside the classroom. Two of the affective factors influencing students' learning are anxiety and motivation.

It has been reported that there is a decreasing number of students who take courses related to physics (Sahin, 2014, Oon & Subramaniam, 2011). Based on existing research, students start to lose interest in learning physics during early years of high school (Marusic & Slisko, 2012, Sahin, 2014). Physics anxiety and motivation play significant roles in this issue. Studies revealed that students experience significant level of physics anxiety. Contributing factors are Physics tests, lack of physics knowledge, mathematics anxiety and physics laboratory anxiety. (Sahin, Caliskan & Dilek, 2015; Sahin, 2014). Furthermore, this is deeply rooted on what happens in the classroom during high school. Most students perceive physics as abstract, irrelevant, and confusing. Different manifestations of anxiety may also be observed among students. They seem nervous when called to recite or worried when doing classroom activities and solving problems.

Anxiety and motivation are somehow connected to each other. The feeling of anxiousness or worry may have an effect on how motivated they are in doing school

tasks. This will then have a domino effect on their performance and achievement if not controlled well. This issue concerns the researcher the most.

Students who are not motivated in class tend to sleep or do anything that makes them busy like doodling and talking with classmates. They tend not to listen to the teacher. In worst cases, students skip classes or even drop from school. On the other hand, students with high motivation tend to listen well and participate in classroom activities.

Research showed that high level of science anxiety imposes negative effect on students' achievement (Sahin, Caliskan & Dilek, 2015). Students' feeling of tension, nervousness or worry would cause them to avoid class participation which possibly impairs learning. Similarly, student with low motivation in science tends to have a low performance. (Glynn, Taasoobshirazi, & Brickman, 2009).

Teaching strategies focusing only on students' intellectual domain may overlook the affective features (Sahin, Caliskan & Dilek, 2015; Pintrich, Marx, & Boyle, 1993). That is why educators need to use instructional approaches that address both areas. Modern trends of physics teaching fall under the constructivist approach; more specifically, "interactive engagement". To address the problems encountered by the researcher in his class, he wishes to implement one of the new trends of teaching Physics in class. This involves the use of Peer instruction and PhET simulation which will be discussed in the latter part of this research.

Statement of the Problem

In this study, the researcher aims to answer the question: "What is the effect of the use of Peer Instruction and PhET simulation on the motivation and anxiety of students in learning Physics?"

More specifically, the study aims to answer the following questions:

1. Is there a significant change on the students' motivation after the intervention?
2. Is there a significant change on students' Physics anxiety after the intervention?

Significance of the Study

The findings of this study would be helpful to science educators, especially those who are teaching in the high school level. Knowing their students in terms of their affective aspects would be a great help on how they will deal with them. This would be an eye-opener for the educators to step up and use contemporary approaches, methods and techniques in teaching instead of being vested in the traditional approaches.

Scope and Limitations

This study is limited on the effect of the use of Peer Instruction and PhET simulations on the motivation and physics anxiety of the students. It does not aim to determine its effect on the performance and conceptual learning of the students.

Definition of Terms

Impact- observable change in the motivation and Physics anxiety of the subjects due to the use of Peer Instruction and PhET Simulation

Motivation- a psychological or affective feature that arouses the subjects to action towards learning Physics

Anxiety- an emotional, distressing experience that is characterized by dislike, worry, and the wish to withdraw from the anxiety-provoking stimulus

Physics Education Technology (PhET) - an innovative teaching tool in teaching physics using computer simulations that aims to address increasing students' least mastered competencies. (Linog, Lahoylahoy and Alguno, 2013)

Peer Instruction- A process of teaching which includes the use of concept tests to involve learners and address misconceptions and problems encountered by the students regarding the topic (Gok, 2014;).

BRIEF REVIEW OF RELATED LITERATURE

Physics Anxiety

The idea of Science anxiety is first coined by Mallow, however, it was in its existence for more than a century (Sahin, et. al. 2015). Anxiety is the students' sensation of tension, uneasiness, apprehension and burden (Ozturk & Akkas, 2013). In the classroom, the students' anxiety may come from different external sources. Alvaro (1978) developed the 44-item Science Anxiety Questionnaire (SAQ). Consequently, Sahin, et. al. (2015) developed and validated a 32-item Physics Anxiety Rating Scale. 5-point Likert

Scale was used to rate each item according to their level of anxiety. They categorized the different sources of physics anxiety according to (a) Physics course/test, (b) lack of physics knowledge, (c) mathematics anxiety and (d) physics laboratory anxiety.

Motivation

The concept of motivation had been defined in many ways from different perspectives. Motivation is described as the "internal state that arouses, directs, and sustains goal-oriented behavior" (Glynn, Taasoobshirazi & Brickman, 2009, p128). Researchers rely on the fact that motivation is general concept rather than a single idea. (Wentzel and Wigfield, 2009). In an article by Moeller, Aro, Lavonen and Schneider (2014) they defined motivation as an "intrinsic experience/approach motivation" that stirs up the students' drive to participate in the different tasks simply because of feeling of enjoyment. They also used "aversive experiences/withdrawal motivation" which provokes students to "withdraw" from uncomfortable situations. In learning a particular knowledge, students' willingness or motivation to learn is essential. It is among the major elements that determines the achievement of learner (Torio, 2015). Research showed that students with high level of motivation are more observant and attentive. They also exhibit better improvement and higher achievement than poorly motivated students (Zimmerman and Schunk 2008). Torio and Cabrillas-Torio (2015) addressed motivation through Whole Brain Teaching which resulted to higher level of motivation among students after instruction.

PhET Simulation

Physics Education Technology (PhET) is an innovative teaching tool in teaching physics using computer simulations that aims to address increasing students' least mastered competencies. (Linog, Lahoylahoy and Alguno, 2013). Today's learners have different needs compared to the learners a few decades ago. They are now on the technology era where computers, cellular phones and other gadgets are 'needs' rather than luxury. They learn in a more 'techie' way. Research showed that the use of PhET in classroom facilitates learning among students (Weiman et.al. 2010). It has a great potential in promoting collaboration and communication among students and teacher when used in the classroom. PhET simulations can be very useful since they can be used in a lot of ways. They can be used in lectures, assignments, activities in the classroom and laboratory. PhET simulations can be used in conducting experiments, class discussion and even games. Evidences showed that the use of PhET simulations resulted to better understanding of concepts (Linog, Lahoylahoy and Alguno, 2013).

In a research conducted by Mirana (2015), he investigated the effects of computer simulations including PhET Simulations on students' epistemological beliefs, motivation as well as understanding of the different concepts involving electricity. No change in the epistemological belief was observed after the implementation of the teaching strategy. However, results gathered from the Physics Motivation Questionnaire and Conceptual Test in Electricity significantly improved. It shows that the use of computer simulations allowed the students to be involved in the

learning process that help improve their level of motivation and understanding. PhET simulations involved students in explorations that are similar to what scientists do. It also allows them to discover concepts and ideas through their own questioning (Adams, 2010). Students usually perceive exploring using the simulations as “fun” in addition to the improved understanding of the Physics concepts (Weiman, Adams and Perkins; 2008).

Peer Instruction

One of the modern trends in physics teaching is Peer Instruction which was developed for physics classes by Mazur (1997). It is benchmarked on the constructivist approach of teaching and learning in which the students should be engaged interactively. Contrary to the traditional lecture type of discussion, Peer Instruction is a student-centered approach. The process of teaching includes the use of concept tests to involve learners and address misconceptions and problems encountered by the students regarding the topic (Gok, 2014). Thus, deeper understanding on the topic and higher level of interest and motivation would be possible (Keiner and Burns, 2010). Through collaboration, students were able to share ideas with their classmates that would help them learn something new and solve problems that they cannot do unaccompanied. Moreover, it has been established in many research that if students are engaged in learning, learning is more promising (Lucas, 2009). During implementation of Peer Instruction, students undergo a process in which they were able to assess and trace their own mental processes known as metacognition (Desoete, 2009, Gok

2014). Peer instruction could alleviate in developing the students' metacognitive skills. Despite the numerous positive feedbacks regarding the effect of Peer instruction on the performance and achievement of students in physics, research on peer instruction focusing on its effect on the motivation and anxiety of students in learning physics is very limited. However, several research showed positive effects of Constructivist Teaching-Learning approach in motivation of students. When students have a great opportunity to express themselves and relate science to real life situations, they are said to be more motivated (Dindar, 2016).

Conceptual Framework

The use of Peer Instruction and PhET simulations is deeply rooted in the idea of constructivist learning theory. In this kind of learning environment, students are actively engaged in the learning process. They learn from their experiences inside the classrooms and interaction with peers and the teacher. Students have the freedom to share their own ideas and opinions, participate in decision making, analyze real-life situations and develop communication skills (Banchi, Bell, 2008; Author, 2012; Dindar, 2016). Therefore, literature suggests that constructivist approach in teaching enhances students' motivation. With the help of the simulations, students can explore the connection between real world objects with the knowledge they've learned (Adams, 2010). Moreover, discussions with peers, which usually happens during peer instruction, helps reduce anxiety among students (Dindar, 2016). Research have shown that the learning environment great-

ly affects the affective outcomes of the students (Pintrich & Schunk, 2012; Dindar, 2016). Therefore, exposing the students in a constructivist learning environment through the use of Peer Instruction and PhET simulations may improve their level of motivation and anxiety in learning Physics concepts.

Methodology

Research Design

This study utilized quasi-experimental design with a control group. The researcher used a control group to determine the effect of the intervention to the motivation and anxiety of a treatment group. It is a quasi-experimental design since the participants are not randomly chosen by the researcher. Two groups of Grade 9 students in Gen. Emilio Aguinaldo National High School were purposively chosen and were assigned in the control group and the experimental groups. In the experimental group, the treatment which features the use of Peer Instruction and PhET Simulations was implemented. The effect of the treatment in the students' motivation and anxiety in learning was measured and compared with the measurement of the participants in the control. In this research, the treatment, Peer Instruction supplemented with PhET Simulation, was the independent variable while the motivation and perceived anxiety are the dependent variables.

Pretest and posttest are administered for both groups. The pretest scores were compared to check whether the two groups have similar level of motivation and perceived anxiety and if the random assignment was successful in

making the two groups the same. (Fraenkel & Wallen, 2009)

Participants and Setting

The participants featured in this research project are two groups of Grade 9 students of Gen. Emilio Aguinaldo National High School, a public junior high school in Imus City, Cavite. The researcher utilized purposive sampling technique in choosing the participants. They were all students taught by the researcher. In the experimental group, there are 65 registered students but only 60 regularly attended and completed the post-test and pretest, whom 24 are boys and 36 are girls. On the other hand, the control group has 64 registered participants but only 58 attended regularly and completed the pretest and posttest, whom 33 are boys and 25 are girls. The intervention was done during the fourth quarter of S.Y. 2015-2016 within a 4-week period.

Instruments

Physics Motivation Questionnaire

The Physics motivation Questionnaire developed by Glynn and Koballa (2006) was used. The instrument is a 30-item questionnaire that measures students' motivation to learn science in terms of six dimensions. Table 1 shows the six components and item placement of each.

For each item, the participants were asked to respond on a five-point Likert Scale, 1-Never, 2-Rarely, 3-Sometimes, 4-Usually and 5-Always.

Physics Anxiety Rating Scale

To measure the perceived anxiety of students in learning Physics, the Physics Anxiety Rating Scale was administered. It is developed by Sahin, Caliskan and Dilek (2015). The instrument contains 32 statements. It covers the four components of Physics anxiety which include "Physics course/test anxiety", "Anxiety about lack of physics knowledge", Mathematics Anxiety" and Physics Laboratory Anxiety". For each statement, the students gave their rating using five-point Likert Scale, 1-Strongly Disagree, 2- Slightly Disagree, 3- Neither Agree nor Disagree, 4- Agree and 5-Strongly Agree.

Interview Guide

To further validate the results, a semi-structured interview which contained 5 items were administered to seven students from the experimental group. The students were chosen according to low, average, and high level of motivation based on the two questionnaires. The interview focused on their experiences and views regarding the instruction. The interview was recorded using digital camera.

The Instruction

In the newly implemented Kto12 Curriculum, Grade 9 Science is required to have four one-hour classes a week. The entire implementation of the treatment was done within four weeks. In other words, a total of 16 hours of classes were conducted. Both experimental and control groups were taught by the same teacher. Three Physics topics were covered during the implementation which

includes Projectile Motion, Momentum and Impulse and Law of Conservation of Mechanical Energy.

In the control group, the teaching was patterned on the Kto12 curriculum suggested by the Department of Education. Before each topic, a priming activity was conducted followed by a traditional laboratory activity. One laboratory activity was done in every topic or subtopic. During each activity, students are required to bring some of the materials that are not available in the schools' laboratory but are readily available in their houses. At the end of the lesson after the activity, an abstraction in form of a lecture-type discussion was done.

In the experimental group, Peer Instruction supplemented with PhET simulation was not implemented. Each topic or subtopic starts with a motivational activity followed by a laboratory activity. In this group, students are not required to bring anything. Instead of using physical materials that are used in the control group, the activities were done using PhET Simulations. The laboratory sheets were revised in such a way that the same concepts will be focused but different materials were used. In the abstraction part, Peer Instruction was used instead of a lecture type of discussion. PhET simulations were also used during the abstraction of concepts.

Figure 2 shows the instructional methodologies used in the two different groups of students. Figure 3 shows the peer instruction implementation procedure. To start, the teacher had a brief discussion of the related concepts. PhET simulations were also used in explaining the concepts. Then, one or two concept tests which contain short conceptual questions regarding the topic being discussed

were presented. Students were given time to think of the answer but were not allowed to talk with one another. Then, they were asked to report their answers. In the process, students were asked to put their fingers on their chest to show their responses: one finger for A, two fingers for B, three fingers for C, four fingers for D and five fingers for E. When the number of correct answers was less than 30%, the teacher revisited the concept. The class discussion was continued by the teacher when the number of correct responses was above 70%. When 30%-70% of answers were correct, the students were asked to discuss with their seatmates. They were then asked to revote afterwards. Finally, the teacher gave explanation on the concept.

Data Analysis

The data were analyzed using IBM SPSS Statistics 20. In a similar research conducted by Ozturk and Akkas (2013), they used “Wilcoxon Signed Rank test” and “Mann Whitney U” in analyzing the results gathered from an anxiety scale. They also considered the results at $p<0.05$ significance level. The same techniques were used in this study.

Results

Two goals of the implementation of the teaching method are to enhance the motivation and minimize the anxiety of the students in learning physics. The results and the analysis of the two questionnaires as well as the interviews done are presented according to the research questions and hypotheses.

Before the Intervention

The research question sought information on the

level of motivation and anxiety of Grade 9 students in the experimental and control group before and after instruction.

Table 2 shows the average rating of students on the different components of motivation. It was found that during the pretest, extrinsic motivation and self-determination were the top motivational components of students in the experimental group while only the extrinsic motivation is the highest in the control group. On the other hand, anxiety about physics assessments is the least motivation component for the experimental while relevance to personal goals and self-determination is lowest in the control group. During the posttest, every motivational component of the experimental group increased giving intrinsic and extrinsic motivation the highest rating and self-efficacy the lowest. In the control group, only the relevance to personal goals and self-determination increased. Extrinsic motivation remained the highest while the rest of the components received the same average rating.

Table 3 shows the average rating of students on the different factors contributing to anxiety. It was found that during the pretest, lack of physics knowledge is the highest contributing factor to anxiety in the experimental as well as in the control group. On the other hand, math anxiety is the least contributing factor to anxiety in both groups. During the posttest, decrease in the physics anxiety in experimental and control group is shown. In the experimental group, the four components received the same rating. In the control group, lack of physics knowledge remained the highest contributing factor to anxiety while physics course/ test anxiety the least.

Table 4 shows the result of analysis of Mann Whitney U Test using the pretest scores of the experimental and control group in the Physics Motivation Questionnaire. It is done to determine if both groups have the same level of motivation before instruction. It is revealed that there is no significant difference at a level of $p<0.05$. Thus, both groups have the same level of motivation before instruction.

For the same purpose, the same test was done using the pretest scores of the experimental and control group in the Physics Anxiety Rating Scale as shown in Table 5. The analysis revealed that there is no significant difference at a level of $p<0.05$. Thus, both groups have the same level of physics anxiety before instruction.

After the Intervention

Table 6 shows the result of analysis of Mann Whitney U Test using the pretest scores of the experimental and control group in the Physics Motivation Questionnaire. It is done to determine if both groups have the same level of physics anxiety after instruction. It is revealed that there is a significant difference at a level of $p<0.05$ as shown in table 1. The difference in the levels of motivation after instruction implies that students in the experimental group are more motivated than the control group.

The same test was done using the pretest scores of the experimental and control group in the Physics Anxiety Rating Scale as shown in Table 5. The analysis revealed that there is no significant difference at a level of $p<0.05$. Thus, the difference in the levels of physics anxiety after instruction as shown in table 2 is significant. This differ-

ence implies that the students in the treatment group have lower level of anxiety compared to those who are in the control group.

To determine whether the differences in motivation and anxiety levels of the control and experimental group before and after the intervention are significant, Wilcoxon Signed Rank test was used.

Table 6 shows the result of analysis of Wilcoxon Signed Rank test using the pretest and posttest score of the control group in the Physics Motivation Questionnaire and Physics Anxiety Rating Scale. It is revealed that there is no significant difference in the scores at a level of $p<0.05$. It means that the change in levels motivation and physics anxiety of the control group before and after instruction is not statistically significant.

Table 7 shows the result of analysis of Wilcoxon Signed Rank test using the pretest and posttest score of the experimental group in the Physics Motivation Questionnaire and Physics Anxiety Rating Scale. It is revealed that there is significant difference in the scores at a level of $p<0.05$. It means that the change in the levels motivation and physics anxiety of the experimental group is statistically significant.

Discussion

The results of this study have shown a significant improvement in the level of anxiety and motivation of the students in the treatment group as revealed by the Wilcoxon Signed Rank test. Moreover, the analysis of the result of the Mann Whitney U test suggests that the difference

in the anxiety levels of the control and experimental group is caused by the intervention. This implies that the use of Peer Instruction and PhET simulations have shown advantage compared to the traditional approach in teaching Physics concepts. This agrees with the findings in a similar research conducted by Mirana (2016). She integrated computer simulations and a constructivist approach in her Physics class. As a result, a significant improvement on students' motivation was observed after the intervention. The study did not focus on students' anxiety. There is a very limited number of literature focused on the use of effect of combined peer instruction and PhET simulations to the motivation and anxiety of the students. Though, several studies concentrated on the effect of constructivist teaching approaches to the two constructs. Most of those studies claimed the constructivist environment has no positive effect on the motivation and anxiety of the students. The results of this study is somehow different to the findings of Dindar (2016). He concluded in her study that the students' level of motivation was lessened when they were exposed to constructivist approach. The difference could have been affected by the nature of the students. Some learners are used to the teacher centered environment. When exposed to a different kind of environment, they tend to lose motivation since they are not used to activities that require active participation. Similarly, Ozturk and Akkas. (2013) found out that cooperative learning activities have no effect to both the motivation and anxiety of the students. The study involves multilevel adult students.

Conclusions and recommendations

Based on the result of the pretest and posttest using the Physics Motivation questionnaire, significant change in the motivation of the students is observed after the intervention was done. Similarly, the results of the pretest and posttest using the Physics Anxiety Rating Scale showed significant decrease in the students' anxiety. Although, the findings of this study are not enough to make generalizations regarding the effect of Peer instruction and PhET simulations on the motivation and Physics anxiety, previous studies do not fully support the advantage of constructivist learning environment to students' level of motivation and anxiety. However, this study can be a basis that when technology which includes computer simulations are integrated to constructivist learning strategy like peer instruction, positive outcomes may be expected.

Based on the conclusion, the following recommendations are drawn:

1. Future research may focus on the impact of the use of Peer instruction and PhET simulations on the academic performance and may consider other variables that may affect the result of the study such as demographic profile, learning styles and intellectual capacity of the students.

2. The researcher wants to recommend to expose students at a longer period of time to determine the impact of the intervention will differ.

3. The researcher recommends to future researchers to conduct similar studies to different grade levels. This is to determine if age factor would affect the change in the motivation and anxiety of the students.

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Tables

Table 1: Physics motivation component (Torio, 2015, p128)

Component	Items
Intrinsically Motivated Physics Learning	16, 22, 27, and 30
Extrinsically Motivated Physics Learning	3, 7, 10, 15, and 17
Relevance of Learning Physics to Personal Goals	2, 11, 19, 23 and 25
Self-determination for Learning Physics	5, 8, 9, 20 and 26
Self-efficacy for Learning Physics	2, 21, 24, 28, and 29
Anxiety about Physics Assessment	4, 6, 13, 14, and 18

Table 2: Average rating of students in each component of Physics Motivation Questionnaire

Component	Experimental		Control	
	Pretest	Posttest	Pretest	Posttest
Intrinsically Motivated Physics Learning	3.0	3.7	2.9	2.9
Extrinsically Motivated Physics Learning	3.1	3.7	3.0	3.0
Relevance of Learning Physics to Personal Goals	2.9	3.2	2.8	2.9
Self-determination for Learning Physics	3.1	3.4	2.8	2.9
Self-efficacy for Learning Physics	3.0	3.3	2.9	2.9
Anxiety about Physics Assessment	2.9	3.6	2.9	2.9

Table 3:Average anxiety level of students in Physics Anxiety Rating Scale

Factor	Experimental		Control	
	Pretest	Posttest	Pretest	Posttest
Physics course/test anxiety	2.9	3.5	2.8	3.0
Anxiety about lack of physics knowledge	2.1	3.5	2.5	2.7
Mathematics Anxiety	3.0	3.5	2.9	2.8
Physics Laboratory Anxiety	2.5	3.5	2.6	2.9

Table 4: Results of Mann Whitney U test using scores in pretest of experimental and control group in the Physics Motivation Questionnaire

Group	n	Mean Rank	Sum of Ranks	U	z	p
Control	64	65.23	4175.00	1745	-0.883	377
Experimental	60	59.58	3575.00			

Table 5: Result of Mann Whitney U test using scores in pretest of experimental and control group in the Physics Anxiety Rating Scale

Group	n	Mean Rank	Sum of Ranks	U	z	p
Control	64	58.84	3766.00	1686	-1.178	0.239
Experimental	60	66.40	3984.00			

Table 6: Results of Mann Whitney U test using scores in posttest of experimental and control group in the Physics Motivation Questionnaire

Group	n	Mean Rank	Sum of Ranks	U	z	p
Control	64	92.48	5919.00	1831	-9.619	0.000
Experimental	60	30.52	1831.00			

Table 7: Results of Mann Whitney U test using scores in posttest of experimental and control group in the Physics Anxiety Rating Scale

Group	n	Mean Rank	Sum of Ranks	U	z	p
Control	64	37.13	2376.50	296.5	-8.146	0.000
Experimental	60	89.56	5373.50			

Table 6: The results of Wilcoxon Signed Rank test using the pre-test and post-test scores of the control group in the Physics Motivation Questionnaire and Physics Anxiety Rating Scale

Pretest/Posttest		n	Mean Rank	Sum of Rank	Z	P
Pretest-Posttest in Physics Motivation	Negative Ranks	32	29.39	940.50	-.910	.363
	Positive Ranks	25	28.50	712.50		
	Ties	7				
Pretest-Posttest in Physics Anxiety	Negative Ranks	28	31.41	879.50	-.668	.504
	Positive Ranks	28	25.59	716.50		
	Ties	8				

Table 7: The results of Wilcoxon Signed Rank test using the pre-test and post-test scores of the experimental group in the Physics Motivation Questionnaire and Physics Anxiety Rating Scale

Pretest/Posttest		n	Mean Rank	Sum of Rank	Z	P
Pretest-Posttest in Physics Motivation	Negative Ranks	9	11.94	107.50	-5.720	.000
	Positive Ranks	48	32.20	712.50		
	Ties	3				
Pretest-Posttest in Physics Anxiety	Negative Ranks	60	30.50	1830.00	-6.747	.000
	Positive Ranks	0	.00	.00		
	Ties	0				

Figures

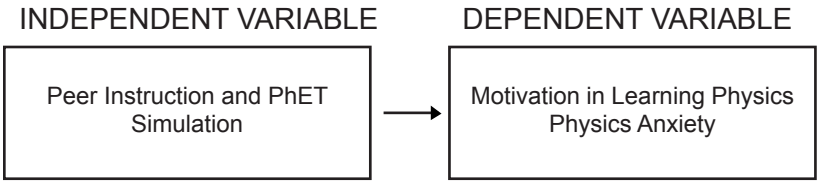

Fig.1 Conceptual framework of the study

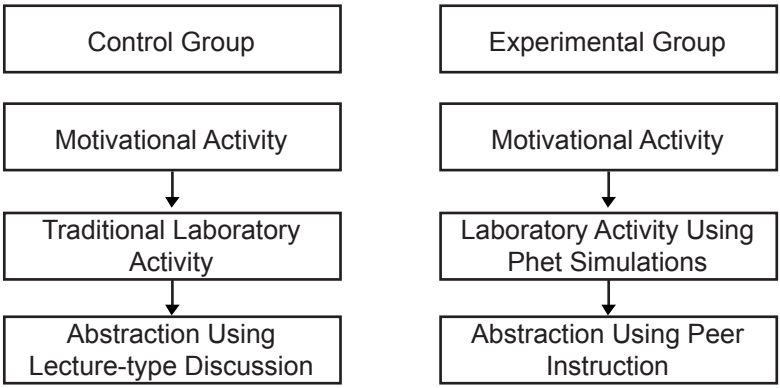

Figure 2. Implementation of two different Instructional Methodologies

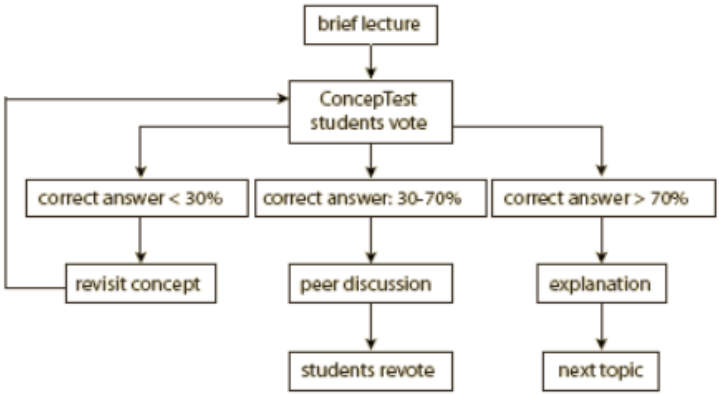

Figure 3. A peer instruction implementation procedure (Lasry et al., 2008)

THE USE OF COOPERATIVE LEARNING IN TEACHING MATHEMATICS TO IMPROVE THE ACADEMIC PERFORMANCE OF SELECTED GRADE 7 STUDENTS IN GEANHS S.Y.2015-2016

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Abstract

The main goal of the study was to investigate the use of cooperative learning in teaching Mathematics to improve the academic performance of the selected Grade 7 students in General Emilio Aguinaldo National High School, S.Y. 2015-2016. A teacher-made test constructed by the researcher was the primary tool in determining the academic performances of the selected sample students through their pretest and posttest scores. Cooperative learning was implemented through group activities and peer teaching in discussing the covered lesson in the experimental group. For the analysis of data, mean, standard deviation and t-test were used.

As revealed by the result of the administered teacher-made test, the group taught in Mathematics with the use of cooperative learning improved more than the students taught without the use of such strategy. This signifies that the use of cooperative learning in teaching may improve students' performance in Grade 7 Mathematics. This is supported by the result of the study of Marzano, Pickering & Pollock (2001) that organizing students in cooperative

learning groups can lead to gain as high as 28 percentiles in measured student achievement.

Introduction

The major aim of the teaching-learning process is to bring about the intended learning outcome to the learners and can be seen through its achievement in terms of grades and performance. To achieve this purpose, teachers use diverse teaching approaches and methods to improve learning and understanding. One of these approaches is the use of cooperative learning which has been widely utilized since the implementation of the K to 12 Program. It has the aims of developing the learner capacity for self-directed learning, teamwork, goal orientation, sense of responsibility and accountability for results as stipulated in DepEd Order 31,s. 2012.

Cooperative learning can be defined as a teaching method that involves students in learning process in order to understand and learn content of the subject (Slavin, 2011). It has been used by many researchers as instruction strategy with positive and improved results.

This positive and improved results was highlighted in the study conducted by Zakaria and David (2010) who found that cooperative learning improves students' achievement in mathematics. Further, cooperative learning is an effective approach that mathematics teachers need to incorporate into their teaching.

Furthermore, Shimaze & Aldrich (2010) stressed that cooperative learning promotes deep learning of materials and helps students to achieve better grades (Shimaze &

Aldrich, 2010).

In lieu of this and taking into account the positive outcome of using cooperative learning, the researcher viewed that using cooperative learning will be of value to Grade 7 students especially in learning Mathematics.

Statement of the Problem

This study was conducted to investigate the use of cooperative learning in teaching Mathematics to improve academic performance of selected Grade 7 students in General Emilio Aguinaldo National High School, SY 2015-2016.

Specifically, it sought to answer the following questions:

1. What was the profile of the respondents in terms of:
a. Age and
b. Sex
2. What are the pre-test and post-test performances of the group of students taught without and with the use of cooperative learning?
3. What is the difference between the pre-test performances of the group of students taught without and with the use of cooperative learning?
4. What is the difference between the pre-test and post-test performances of the group of students taught without cooperative learning?
5. What is the difference between the post-test performances of the group of students taught without and with the use of cooperative learning?

Hypothesis of the Study

1. There is no significant difference between the pre-test performance of the group of students taught without and with the use cooperative learning?
2. There is no significant difference between the pre-test and post-test performance of the group of students taught without the use of cooperative learning?
3. There is no significant difference between the pre-test and post-test performances of the group of students taught with the use of cooperative learning?
4. There is no significant difference between the post-test performance of the group of students taught without and with the use of cooperative learning?

Scope and Limitation

The study focused on the use of cooperative learning in teaching Grade 7 Mathematics to improve the academic performance of selected Grade 7 students of General Emilio Aguinaldo National High School, S.Y. 2015-2016.

The pre-test and post-test scores of the students determine the performance of the sample students in classes that did not use and use cooperative learning in Mathematics.

A 20-item teacher-made test which covered the topics in Measurement was used as an instrument to determine the student's academic performance. This teacher-made test was validated through the focus group discussion among the Grade 7 teachers. Cooperative learning was used through group activities and peer teaching in discussing the lessons in the experimental group while

lecture method was used for the control group.

Twenty students formed the control group (teaching without cooperative learning) and another 20 students formed the experimental group (teaching with the use of cooperative learning).

The action research was conducted for 15 days with 60 minutes of contact time per day.

The results of this study were valid only for the sample under study and cannot be used to claim that other students subjected to the same treatment will have the same results.

Brief Review of Literature

This chapter presents a discussion of the literature and studies which contributed significant insights on the study.

Cooperative Learning

The term cooperative learning refers to students working in teams on an assignment or project under condition in which certain criteria are satisfied, including that the team members be held individually accountable for the complete content of the assignment or project. (cited by Laguador, J. 2014)

Collaboration among the group members improves the skills of the students to communicate in social discussion and participate in the accomplishment of their common goal. Low performing students may tend to give up on performing his activity alone but with the help of the high performing students.

According to Lavasani & Khandan (2011), coopera-

tive learning offers a pleasant learning situation for all students, all students have equal opportunity, competition is amended as friendship, the spirit of cooperation and participation is reinforced, and all students are entitled to be thoughtful and creative. They also added that teacher can encourage students to ask for help to better understanding of the difficult subjects through forming cooperative groups; on the other hand students will learn to ask help in different occasion whenever help seeking transpires.

Race as cited by Laguador, J. (2014) emphasized that cooperative learning might have affected the “doing” without affecting the “wanting”. Students may have appeared to engage more actively in discussion, still, this does not necessarily imply that cooperative learning increased their cognitive activity. The extent of learning can be best measured and described through assessing the quality of their products or outputs. It is still a challenge for the teachers to observe properly the behavior of the students that would somehow affect their academic performance.

Academic Performance

Academic performance generally refers to how well a student is accomplishing his or her tasks and studies. However, there are quite a number of factors that determine the level and quality of students’ academic performance, such as actual classroom tasks and assignments which covers (a) in-class seatwork and homework, (b) quizzes and tests, and (c) essays and reports (Pintrich and De Groot as cited by Gatchalian, M. (2015)).

Many educational studies are correlated with academic

performance many of which include demographic profile, students' and teachers' perception as well as teaching and learning styles, teaching methods and strategies

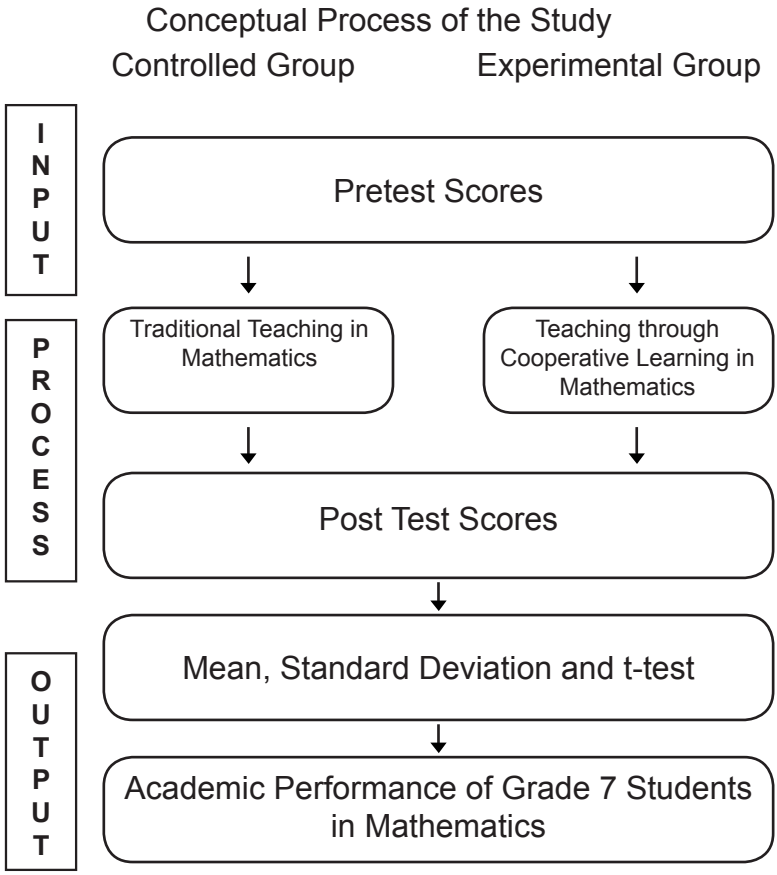
Relation of Cooperative Learning and Academic Performance

One fear many instructors have about cooperative learning is what when students' grades are affected by the achievement of their group-mates, the students will believe that the grading practices are unfair. When positive outcome interdependence is structured within learning groups, achievement is greater than when students work individualistically on their own. In addition, cooperative experiences resulted in more positive attitudes toward classical music and own musical skills and no change in desire to teach music to elementary school students. (Iyer 2013)

Cooperative learning when instituted successfully practiced creates a microcosm of equity in a group. When striving to teach students to create, to monitor, and evaluate the equity in their cooperative group, teachers teach them how to begin to create a just society. Cooperation thus is humanity's strongest asset and hope (Iyer, 2013). Cooperative learning has been widely embraced by mathematics teachers as well as for literacy learning. Cooperative learning is a great tool that can be used to improve student achievement in classroom. It also fosters tolerance and acceptance in the community which improves quality of everybody's life. Multiple researchers have shown that cooperative learning strategies can be utilized to promote deeper understanding. Educators can use various strategies of cooperative learning along with their instructional

techniques to enhance learning in a classroom. This will result in a higher achievement.

Figure 1



As Figure 1 reveals, the study was geared toward investigating the use of cooperative learning in teaching Mathematics in improving the academic performance of the students through experimental design. In doing so, a teacher made test was administered to the students for their pretest and posttest scores. Mean and standard devi-

ation were utilized for the pretest and posttest performances and t-test for the differences between the performances in the pretest and posttest.

Methodology and Research Design

Research Design

The experimental design was used with cooperative learning as instruction model and traditional lecture method. This design was selected on the basis of the nature of the problem and the study hypotheses. The study design consists of two groups: experimental group (20 students) and control group (20 students). After exposing the experimental group with treatment of cooperative learning while providing traditional method of instruction to the control group the posttest was administered.

Population

This study used Grade 7 Sampaguita (A) and Ilang-Ilang (B) students of General Emilio Aguinaldo National High School for the school year 2015-2016. Each group had 20 students.

Data Gathering Procedure

This study was conducted from July 6- September 6, 2015.

Data were gathered by administering the pre-test. The researcher then taught one group of students through the traditional teaching method and the experimental group was taught by student-lecturer. Group discussions were also used in lessons focusing on Measurement. Post-test

was given to determine the academic performance of the students in the experimental and control group.

For the analysis of data, mean, standard deviation and t-test were used.

Research Instrument

The study used a teacher-made multiple-choice type of test consisting of 20 items with four options each to evaluate the students' academic performance. The test questions covered the lessons in Grade 7: Measurement. This test was given as pre-test and post-test.

Operationalization of Variables

The purpose of the analysis and interpretation of the mean scores obtained by the samples in the pre-test/ post-test, the following equivalents were used:

17 - 20	-	Outstanding (O)
13 - 16	-	Very Satisfactory (VS)
9 - 12	-	Satisfactory (S)
5– 8	-	Fair (F)
1 - 4	-	Unsatisfactory (US)

Statistical Treatment

The following statistical measurements were used in analyzing the data.

A. Mean and standard deviation were used to find the following:

1. Pre-test and post-test performances of the students taught without using cooperative learning.

2. Pre-test and post-test performances of the students taught with the use cooperative learning.

B. T-test for correlated means were used to find whether there was a significant difference between the pre-test and post-test performances of the two groups, the significant difference between the pre-test performances of the two groups, the significant difference between the post-test performances of the two groups, one group taught Mathematics without the use of cooperative learning and the other the group taught Mathematics with the use of cooperative learning.

Results and Discussion

The following highlights the findings of the study.

1. What was the profile of the respondents in terms of:

a. Age. Majority of the Grade 7 students were 11 years of age.

b. Sex. Most of the Grade 7 students were female.

2. What are the pre-test and post-test performances of the group of students taught without and with the use of cooperative learning?

Table 1 shows the student's pre-test and post-test mean scores and standard deviation of the group taught without and the other with the use of cooperative learning. Sampaguita (taught without the use of cooperative learning) has means scores of 7.60 and 13.65 respectively and standard deviations of 2.33 and 3.86. On the other hand, Ilang-Ilang (taught with the use of cooperative learning) has 7.60 and 17.10 mean scores; and standard deviations of 3.36 and 2.43 for their pre-test and post-test respectively.

Table 1. Pre-test and post-test performances of students taught in Mathematics without and with the use of cooperative learning

Group	Mean		Std. Deviation	
	Pre-Test	Post-Test	Pre-Test	Post-Test
taught without the use of cooperative learning Sampaguita	7.60 (F)	13.65(VS)	2.33	3.86
taught with the use of cooperative learning Ilang-Ilang	7.60 (F)	17.10(VS)	3.36	2.43

3. What is the difference between the pre-test performances of the group of students taught without and with the use of cooperative learning?

The difference in the pre-test performances of the two groups, one taught in Mathematics without the use of cooperative learning and the other with the use of cooperative learning is presented in table 2. Results show that there is a mean difference of 0.00 and having a calculated t-value of 0.00 with a p-value of 1.000 is not significant at 0.05 level. It means that both groups were on equal level of achievement before intervention.

Table 2. Difference between the pre-test performances of students taught without and with the use of cooperative learning

Strategy				Mean Difference	T-value	P-value
Without the use cooperative learning		With the use of cooperative learning				
Mean	SD	Mean	SD			
7.60	2.33	7.60	3.86	0.00	0.00	1.000*

* 0.05 level

* not significant

4. What is the difference between the pre-test and post-test performances of the group of students taught without cooperative learning?

From the data presented in Table 3, there is a mean difference of 7.60 and 13.65 between the pre-test and the post-test scores of students taught in Mathematics without and with the use of cooperative learning respectively. Results also indicate that -5.48 is the calculated t-value for the group taught without the use of cooperative learning and -10.25 for taught with the use of cooperative learning with p-values of 0.000 and 1.7241 respectively.

The results imply that students' performance increase in both groups, one taught without the use of cooperative learning, while the other, taught with the use of cooperative learning. This means that both method of instruction has an effect on the learning and understanding of the students.

Table 3. Difference between the pre-test and post-test performances of students taught in Mathematics without and with the use of Cooperative learning

Group	Pre-Test		Post Test		Mean Difference	T-value	P-Value
	Mean	SD	Mean	SD			
taught without the use of cooperative learning Sampaguita	7.60(F)	2.58	13.65(VS)	3.86	6.050	-6.01	1.20
taught without the use of cooperative learning Ilang-Ilang	7.60(F)	3.36	17.10(VS)	2.43	9.500	-9.050	0.927*

* 0.05 level
*significant

5. What is the difference between the post-test performances of the group of students taught without and with the use of cooperative learning?

The post-test performances of the students taught without and with the use of cooperative learning differ by -3.450 (Table 4). It also shows that there was statistically significant difference in the mean of the posttest performances of students across the experimental group and control group at 0.05 level. Therefore, the null hypotheses of no significant differences between the post-test performances was rejected. It also implies that cooperative learning has good effects in the academic performance of students

The results indicate that cooperative learning when using as instructional strategy has positive effect on students'

academic achievement. These results are in consent with previous research studies, conducted by Shimazoe & Aldrich (2010); Ainley (2006); Thurston et al., (2010). Similar results has been given by Melihan and Sirri (2011) who accomplished that cooperative learning is more effective in comparison to traditional methods for improving academic achievement. These results are also supported by research studies carried by Gillies, 2006; Hennessy & Evans, 2006; Johnson, Johnson & Stanne, 2000; Bukunola & Idowu, 2012; ?im?ek, 2012). Sambo (2003) conducted and experimental study with same objectives and presented that the mean score of experimental group was better than control group.

Table 4. Difference between the post-test performances of students taught without and with the use of cooperative learning

Strategy				Mean Difference	T-value	P-value
Without the use of CL		With the use of CL				
Mean	SD	Mean	SD			
13.65	3.86	17.10	2.43	-3.450	3.39	0.0019*

* 0.05 level
* significant

Conclusions

From the presented and interpreted results of the study, the following conclusions are made:

1. The Grade 7 students can be typically described as female and have an age of 11.

2. The two sections, one taught in Mathematics without the use of cooperative learning and the other with the use of cooperative learning performed fairly in the pre-test. On the other hand, in their post-test. The two sections post-test improved both from fairly to very satisfactory.

3. Pre-test mean scores of the two groups did not differ significantly. This mean that the academic performances of the students in both groups at the start of the study are the same.

4. The post-test mean scores of both groups significantly improved compared to their pretest mean scores.

5. The post-test performances of the two groups significantly differed. The group taught in Mathematics with the use of cooperative learning improved more than the students taught without the use of cooperative learning. This signifies that the use of cooperative learning in teaching may improve students' performance in Grade 7 Mathematics.

Recommendations

Based on the outcomes of the study the following recommendations are given:

1. Teachers are encouraged to use cooperative learning in teaching Mathematics especially in topics under Measurement.
2. A write-shop may be conducted to create lesson exemplars that lead teachers to utilize strategies using cooperative learning.
3. Similar researches may be conducted in the school with larger sample to ascertain whether the use of cooperative learning will yield the same results especially to classes with bigger number of students.
4. Further studies may also be conducted in other Grade 7 lessons and different learning areas to generate the results of this study.

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ASSESSMENT OF PROJECT GUIDE IN IMPROVING NATIONAL ACHIEVEMENT TEST (NAT) PERFORMANCE IN ARALING PANLIPUNAN OF GRADE 10 STUDENTS

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Abstract

The study was conducted to determine the factors that predict the students' performance in Araling Panlipunan and National Achievement Test at Imus National High School. Respondents of the study include the faculty of Araling Panlipunan and four grade 10 sections, of these, one was identified as controlled group. The descriptive statistics used for computation of mean, frequency, percentage, standard deviation, multiple regression analysis for identifying the predictors and testing the validity of hypothesis.

The study revealed that most of the teacher-respondents are 31-40 years old or 40%, has a teaching experience from two 2-5 years or 37% and 35% attended school base seminars. Project GUIDE factors-goals (?=4.1373), uniqueness (?=4.2066), integration of materials are mostly inadequate while professional development described as moderate evident (?=2.915). With regards to the descriptive findings, the combined results of the four sections in participation rate revealed 82% or very high; and NAT performance revealed (?=55.26) or average mastery.

The findings of this study will lead to higher participation rate in Araling Panlipunan of grade 10 students and improve National Achievement Test. On the part of educators, they should find ways to increase their ability and capacity as those with academic background and strengthen professional and social relationship to school and community.

Hence, the hypothesis is partially sustained.

Introduction

The Department of Education spend billions of government taxes just to uplift the quality of education of every Filipino. Yet, small fraction was allocated for various infrastructure like construction of classroom building, printing of textbooks, logistics, purchasing of chairs, instructional materials, and payment for personnel and teachers compensation. The chief educators sending teachers to seminars, workshops, and other professional development just to be able to identify the needs of the learners and bring their environment to the positive ends. In determining student what and how they learn outside and inside the classroom, the government agency randomly examine status of student level of understanding into different learning areas for them to be able know if their investments are profitable.

Imus National High School (INHS) is one of the premier public secondary schools in Imus City which experienced problems from NAT in all learning areas. According to records, Araling Panlipunan subject obtained only 49.92% from school year 2011-2012, 53.19% from 2012-2013, and decreased in the succeeding school year 2013-2014

which is 50.83% that resulted to the lowest performance in the abovementioned examination. So where is the root of the problem occurred? One of the major problems in INHS is not discipline but the lack of procedures, routines, and intervention. Good administrators, supervisors, principals, and school educators can easily teach their teachers good intervention skills. Cawelti's research on the practices and programs schools use has revealed that "intervention skills can substantially improve to increase student performance in NAT."

To further strengthen this, the educators should identify and develop to enhance the desirable uniqueness of learners and individuals. It should be organized in terms of learners' interest, ability, and activities. The learner should be made the starting point, the center. It is also who determine both the quality and quantity of learning. The aim of teachers is let the learners emphasize the meaning of difficulties in learning areas and take into consideration the areas of conscious interest to improve the NAT.

. Therefore, this is how to improve NAT: (1) teach classroom skills and have school-wide procedures in intervention; (2) create a school culture of family; (3) have school goals and religiously collect and analyze the data; and (4) have an induction program for new teachers. Nevertheless, there is no study yet regarding the effect of Project GUIDE of the teacher holding an advanced level on student in Araling Panlipunan in National Achievement Test.

Statement of the Problem

The objective of this study is to assess **Project GUIDE** (**G**oals of teacher **U**niqueness in teaching **I**ntegration of learning resources for better **D**evelopment of **E**ducators) in improving NAT Performance in Araling Panlipunan of Grade 10 Students in INHS. Specially, this study aimed at seeking responses to the following specific problems:

1. To what extent does Project GUIDE of Araling Panlipunan teachers influence the student performance in National Achievement Test?
2. Does Project GUIDE of Araling Panlipunan teachers affect the student performance? Therefore, further exploration of such relationships in Project GUIDE instruction is needed.

Research Hypothesis

The study posited the following hypothesis as an outright scientific guess to the statement of the problems:

The following factors, singly or in combination, predicts the Assessment of project GUIDE in Improving National Achievement Test (NAT) in Araling Panlipunan of Grade 10 Students.

* Teacher-related Factors
* Project GUIDE Factors

Scope and Delimitation of the Study

This study focused on the assessment of Project GUIDE (Goals of teacher Uniqueness in teaching Integration of learning materials for better Development of Educators) in improving NAT Performance in Araling Panlipunan

of Grade 10 Students in Imus National High School.

This action research focused only on the performance of selected grade 10 students. The conclusion reached by this study is limited only to the nature of this design.

Review of Related Literature

Students with specific or general academic difficulties may show signs of learned helplessness with regards to classroom tasks, especially if their past efforts have been repeatedly met with failure (Schumacher, 1988).

Project GUIDE. This project refers to initiated design programs of the respondents which means **G**oals of teacher; **U**niqueness in teaching; **I**ntegration of learning resources for better **D**evelopment of **E**ducators.

Goals of teacher. Some studies determined that the goal of the teacher is to offer opportunities for highly effective facilitators to innovate and hone their practice through continuous learning and frequent professional learning opportunities. Teacher's goals can expand their reach beyond the classroom by sharing expertise with students, colleagues, and developing a strong culture through peer support, collaboration, and trust.

According to Borko (2013), the primary goal of the teacher is to help the co- teacher develop a deep and meaningful concept of teaching, to assist the student teacher to analyze the various facets of teaching, to provide the student with sources and resources and to facilitate and encourage the unique teaching behavior of the student. Beginning teachers need help from master teachers in instruction, classroom management, planning, re-

cordkeeping, parent conferences and audio-visual equipment operations.

U*niqueness in teaching.* Teacher have unique style in teaching. They employed with passion and drive to improve the instructional quality of their schools extending their impact as teachers. In the article "teacher career pathways" published November 2015, the uniqueness of the teacher has a wealth of experience facilitating professional learning of students and leading school-wide initiatives. By working closely with school/ division leadership, teachers support the development of their students, and peers by creating professional learning opportunities, leading students teams, and facilitating coaching conversations. Also cited, the uniqueness of a teacher is to facilitate professional collaboration and learning by grade or subject through cultivating partnership among members of the school- division- and community for the benefit of the students.

I*ntegration of learning resources.* Adequacy of appropriate learning resources is desirable in the learning process. The school instructional resources of both public and private schools are essential elements in the learning-teaching process which plays important role in the instruction of the learners. This is considered the most important aspect in the school administration, which is regarded as the plot in steering the school in terms of provision in improvement and delivery of instruction, according to Burant (2014).

According to Sor (2012), Instructional materials and physical facilities such as rooms, electric fans, air conditioners, AVR, speech laboratories, and the like offer a

conducive atmosphere for productive learning. The ratio of number of classes to the number of rooms size used provide facility for class movement and scheduling, thus casing out of tension of the academic work.

***D**evelopment of Educators.* Studies discover again and again that teacher's expertise is one of the most important factors in determining student achievement, followed by the smaller but generally positive influences of small schools and small class sizes. That is, teachers who know a lot about teaching and learning and who work in environments that allow them to know students well are the critical elements of successful learning (Doing What Matters Most: Investing Quality Teachers, 1997).

A recent study by Nathan and Petrosino (2013), found that "educators who have advanced knowledge of a subject, but lack concomitant knowledge of how novices actually learn that subject tend toward views of student development that align more closely with the organization of the discipline than with the learning processes of student." (p. 906). The authors indicate that their findings call into question the policies that seek to streamline the licensure process of new teachers on the basis of their subject-matter expertise.

The National Achievement Test administered by the Department of Education (DepEd) in the Philippines, a set of standardized tests addressing the major subjects taught in school, is an example. These tests are given to Grade 3 where students are assessed in both English and Filipino (These two subjects comprise two thirds of the exam) and Math and Science (These two account for the remaining one third). The set also is administered to grade

10 students. The scores in these exams are reported as percentage of items correctly answered. A mean percentage score (MPS) of 75% is currently set as the goal of the DepEd. The following are data from a presentation made by the National Education Testing and Research Center, ("NAT Overview and 2012 Test Results").

The National Achievement Test (NAT) is always given in the first week of March. This covers the five major areas which include English, Mathematics, Science and Health, Filipino, and Heograpiya, Kasaysayan, Sibika (HEKASI). Before classes start in the next year, the results would already be given in order for the teachers to have a basis in improving their teaching performance. An in-depth examination of given results, shows that learners tend to get high scores in the subject where teachers usually excel. Likewise, learners tend to get low scores in the subject where teachers usually perform poorly. Based on this scenario, a conclusion can be drawn that NAT results are the reflections of teachers' ability in teaching the subject.

However, tests in schools can be informative. Scores of students provide a quick glimpse of the current state of education. Thus, it is useful to have these numbers. These numbers may not tell everything in detail with high accuracy. Nevertheless, test results allow for a useful perspective.

It was learned from various Continuous Improvement Projects (CIP) of the Imus National High School in the Division of Imus City that seriousness and clear program of teachers is essential to come up with a better result in National Achievement Test. Thus, school heads become more focused in facilitating learning process most likely

in the area of Araling Panlipunan such as Asian History, World History, Economics, Current Issues. Administrators also, must be aware of their teachers' capacity in teaching the subject (e.g. Teacher major in English teaches in Araling Panlipunan). More so, they should determine where their teachers really excel and give them proper loading. If it happens that a particular teacher does not have the right spirit to handle a particular subject, the teacher should not be given that kind of subject, or else the quality of education will suffer.

To aid in the realization of these objectives Project GUIDE (Goals, Uniqueness in teaching, Integration of learning resources, for better Development of Educators) in Improving NAT Performance in Araling Panlipunan of Grade 10 students in Imus National High School will be assessed. Finally, the results of this study aims to increase a sense of awareness in school and the amount of responsibilities on how to uplift NAT as one of the bedrocks of the school.

Conceptual Framework

The related studies and readings mentioned provided a conceptual framework for this study as presented in the paradigm.

The paradigm of the study utilized the following scheme which serves as the guide in seeking the answers to the problem.

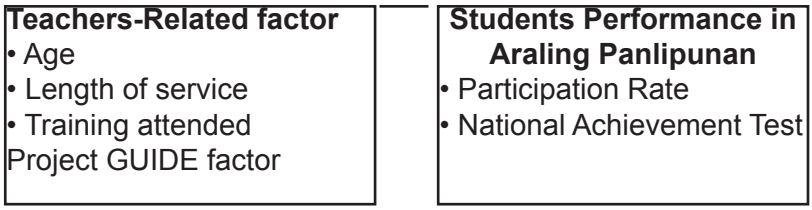

Fig.1 The Conceptual Framework Showing the Possible Predictors of Project GUIDE in Improving National Achievement Test (NAT) Performance and Grade in of Grade 10 Students.

Research Methodology

Research Design

This study employed the descriptive survey method of research. Cawelti (2014) described the descriptive method where judgment over data are treated in scientific manner. This method is used to discover facts on which professional judgment could be based. It involves the description, recording, analysis and interpretation of data gathered.

The descriptive analytical method of research helped determine the factors that influence the Assessment of Project GUIDE in Improving NAT performance in Araling Panlipunan of Grade 10 Students in Imus National High School.

Population and Sample

This study was conducted in selected section identified through purposive sampling. Although faculty of Araling Panlipunan are currently engaged in this study,

the students' respondents were limited into four sections, of these, identified as control group where the researcher handled while three sections are not with a total of 280 respondents. The aim of this study is to evaluate or assess project GUIDE.

Table 1.Percentage Distribution of Respondents by Section

Section	Population	Sample	Percentage
Archimedes	66	53	76.81
Aristotle	67	55	82.09
*Einstein	50	47	94
Avogadro	65	52	76.47
Total	***248***	***207***	***83.47***
Teachers	32	30	93.75
Total	***280***	***257***	***91.79***

*Control Group

Sources and Data-Gathering Instrument

The main instrument of this data was a questionnaire. The questionnaire was divided into three parts: teacher-related factors, project GUIDE factors, and performance indicators of Assessment of Project GUIDE in Improving Performance in Araling Panlipunan of Grade 10 Students in Imus National High School. (Annex A)

Data-Gathering Procedure

Permission to administer the instruments to the selected grade 10 sections, and Araling Panlipunan Department in Imus National High School was sought.

The self-designed questionnaire was the major instrument used in data gathering. This mimeographed

questionnaire was administered to the four (4) selected grade 10 sections, and teachers in Araling Panlipunan Department in Imus National High School through the help and cooperation of teachers, Department Head, and Principal. The results were tabulated for appropriate statistical treatment.

Statistical Treatment of Data

To answer the problem posed in this study, the following statistical tools were used in analyzing the data collected.

1. The descriptive statistics for the computation of mean, frequency, percentage and standard deviation.
2. Multiple regression analysis for identifying the predictors and testing the validity of the hypothesis.

Results and Discussion

Teacher-related factors

The teacher-related factors in this study include age, length of service, and number of trainings attended. These factors which may have bearing on the Assessment of Project GUIDE in Improving NAT and Grade of Grade Students are as follows:

Age

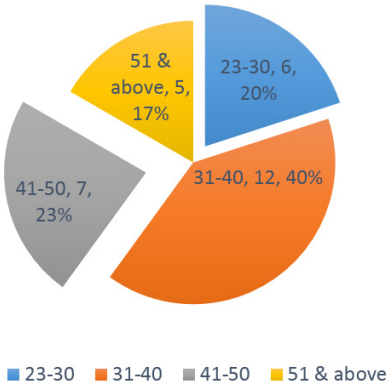

Fig. 2 Frequency and Percentage Distribution of Respondents by Age

As shown in the Figure 2, most of the teacher respondents were from 31-40 years old with a total number of 12 respondents (40%), followed by 41-40 years old with a total number of 7 (23%), 23-30 years old with a total number of 6 respondents (20%), and 51-and above years old with 5 respondents (17%).

Length of service

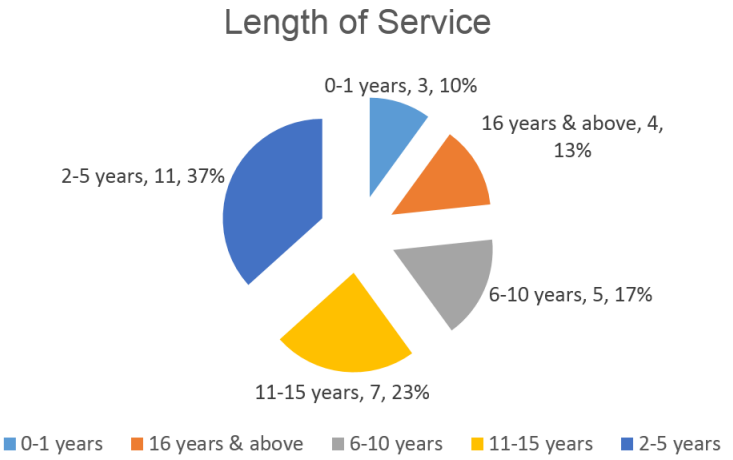

Fig. 3 Frequency and Percentage Distribution of Respondents according to length of service.

As reflected in figure2, the teacher-respondents have different length of years in service: 11 (37%) respondents with 2-5 years, 7 respondents (23%) with 11-15 years, 6-5 respondents (17%) with 6-10 years, 4 respondents (13%) with 16 years above, and 0-3 respondents (10%) with 1 year.

Number of trainings attended

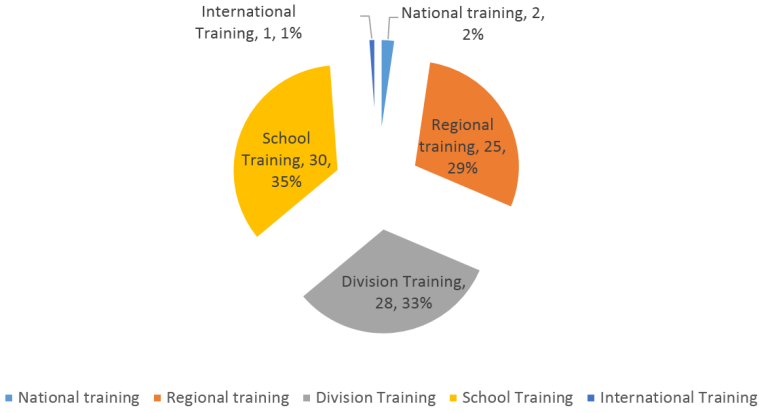

Fig. 4 Frequency and Percentage Distribution of Respondents according to number of trainings attended.

As shown in figure 4, majority of the respondents attended different trainings: school- based training with a total 30 respondents (35%), division- based trainings with 27 respondents who attended (33%), regional- based training with 25 respondents (29%), national training with a total number of 2 (2%), and only 1 (1%) respondent experienced attending international training.

Project GUIDE Factors

The Project GUIDE factors in this study include goals, uniqueness in teaching, and integration of learning materials for better development of educators. Based on the self-designed questionnaire, these are the factors which may have bearing on the performance to uplift NAT results and student performance.

Table 2. Status of School in terms of Goals and Uniqueness in Teaching Content

Project GUIDE Content	The goals is…	ẋ	Interpretation
Goals	1. Encouraging learners in using higher thinking skills in asking questions.	4.1023	Very Evident
	2. Integrating language, literacy and values in teaching.	4.3674	Very Evident
	3. Aligning the lesson objectives, teaching methods, learning activities, and instructional materials	4.1439	Very Evident
	4. Engaging and sustaining learners interest in the subject matter by making content	4.1174	Very Evident
	5. Establishing routines and procedures to maximize the use of time and instructional materials	3.8741	Very Evident
	6. Utilizing technology resources in planning, designing and delivery of the lesson.	4.2311	Very Evident
	7. Presenting a lesson in a logical and developmental manner, and	4.3215	Very Evident
	8. Creating situations that encourages learners to use higher order thinking skills.	4.6901	Very Evident
	Mean Average	4.1373	Very Evident

Uniqueness in teaching	***The Uniqueness in teaching…***		
	1. Providing a timely, appropriate reinforcement/ feedback to the learners behavior	4.2239	Very Evident
	2. Using appropriate formative, summative tests congruent to the lesson	4.0901	Very Evident
	3. Using non-traditional authentic assessment techniques	4.8431	Very Evident
	4. Aligning the students learning and reinforcement to the lesson	4.0459	Very Evident
	5. Providing opportunity for learners to demonstrate their learning	4.1211	Very Evident
	6. Encouraging the active participation of the students in the learning tasks with some levels of independence	4.5321	Very Evident
	7. Motivating the students to asks questions relevant to the lessons	4.0001	Very Evident
	8. Sustaining learners interest in the lesson	4.9123	Very Evident
	9. Following the routines and procedures of teaching-learning process to maximize instructional time.	4.6541	Very Evident
	Mean Average	4.2066	Very Evident

Legend:

4.20-5.00	*Very Evident*
3.40-4.19	*Evident*
2.60-3.39	*Moderately Evident*
1.80- 2.59	*Slightly Evident*
1.00-1.79	*Not Evident*

Table 2 revealed that the goals of project content (?=4.1373), and uniqueness in teaching (?=4.2066) were implemented as perceived by the teacher-respondents to be highly evident. Diez and Raths (2014), in their studies, defined a competent curriculum and effective teacher as one who knows his/her occupation as a result of considerable amount of actual participating experience or that he/she must have come up through the mill. He must know how to teach, must have the personality and sympathy to deal with students and their school activities.

The project GUIDE or curriculum content should be a basis of an ideal classroom teacher who knows well his/her learning competencies and particular discipline, but is ready to transcend, to do collaborative teaching (in tandem or as a team) with peers from different disciplines, to share knowledge and resource with them, and to build a community of effective educational practice.

Table 3. Status of School in terms of Integration of learning materials Content

Integrated Learning Materials	Minimum	Maximum	ẋ	Interpretation
1. Classroom facilities	2.50	5.00	3.840	Adequate
2. LCD and projector	2.90	5.00	2.774	Inadequate
3. Handouts	2.00	5.00	2.567	Inadequate
4.Journals, magazine, and periodicals	1.33	4.17	2.780	Inadequate
5. Other books relevant to the subject matter	2.00	5.00	3.606	Adequate

Integrated Learning Materials	Mini-mum	Maxi-mum	ẋ	Interpretation
6. Videos that are applicable to the subject matter	1.00	4.57	2.062	Very inadequate

Legend:

4.20-5.00 Very Adequate
3.40-4.19 Adequate
2.60-3.39 Inadequate
1.80- 2.59 Very inadequate
1.00-1.79 Not at all

As revealed in table 3, classroom assessment and other books relevant to the subject matter obtained adequate (?=3.840), (?=3.606) respectively. Same with LCD and projector (?=2.774), handouts (?=2.567), journals, magazine, and periodicals, perceived as inadequate (?=2.780), and only one indicator was rated as very inadequate or (?=2.062) for videos that are applicable to the subject matter. Petrosino (2013) in his findings revealed that quality of tools as well as the availability of learning resources found plays a significant role in the implementation of any classroom and curricular program. When integration of materials are inadequate to meet the required number, the achievement desired outcomes will be too difficult.

Factor analysis applied in this table shows that the integration of learning materials is more of a product among teachers and learners than that of the physical condition of the classroom behaviors. Materials or physical condition of the classroom may exert an influence on the social interaction among the personalities in class but

it may not contribute as much as the classroom social interaction does.

Table 4. Status of School in terms of Professional Development Content

To what extent are best practices being used?	ẋ	Interpretation
1. Teacher as coaches/ trainers are fluent in the innovation(s)	2.58	Moderate Evident
2. Accountability for development and monitoring of quality and timeliness of training services is clear	3.45	Evident
3. Improves teaching performance based on feedback from school head, students, and peers.	3.38	Moderate Evident
4. Reflects the quality of his/her own teaching	2.55	Moderate Evident
5. Accepts personal accountability to learners achievement and performance	2.51	Moderate Evident
6. Manifest determination to become a better person and teacher	2.51	Moderate Evident
7. Links and share knowledge to the students and peers	2.54	Moderate Evident
8. Reports on time	3.80	Evident
Average Mean	2.915	Moderate Evident

Legend:

4.20-5.00	*Very Evident*
3.40-4.19	*Evident*
2.60-3.39	*Moderate Evident*
1.80- 2.59	*Slightly Evident*
1.00-1.79	*Not Evident*

Table 4 shows that the educators' professional development content was generally described as moderate evident (?=2.915). It manifested that best practices indicate

that good training and coaching includes ample opportunities for demonstrations of evidence-based practice-related skills, accountability for development, and reports on time. The results of six indicators rated as moderate evident are fed-forward to the teacher for each newly trained or newly accepted practitioner. In this way the teacher will know areas of strength and areas that need improvement on which to focus early in the teaching relationship. Schools make use of these data to continue to improve teaching methods.

Table 5. Descriptive Findings on Project GUIDE factors on the Students. Performance in Araling Panlipunan

Students Performance	Minimum	Maximum	ẋ	Interpretation
Participation rate (per section)	**68%**	**95%**	**82%**	**Very High**
*Einstein	90%	95%	93%	Very High
Aristotle	62%	95%	79%	High
Archimedes	61%	95%	78%	High
Avogadro	58%	95%	77%	High
National Achievement Test (NAT)	50.82	61.74	55.26	Average Mastery

**Controlled group*

	National Achievement Test (NAT)
Participation Rate	*96-100%....Mastered*
81-100%- Very high	*86-95%.....Closely Approximating Mastery*
61-80%- High	*65-85%.....Moving Towards Mastery*
41-60%-Average	*35-65%.....Average Mastery*
21-40%-Low	*15-34%.....Low Mastery*
0-20%-Very Low	*5-14%.....Very Low Mastery*
	0-14%.....Absolutely No Mastery

Table 5 revealed the efforts are stimulated by growing evidence that students will not meet the participation rate as very high percentage especially for the three sections. Only controlled group (Einstein) obtained 93% or very high in participation rate. The National Achievement Test (NAT) (?=55.26) is evidently observed in average mastery.

The study slightly supports the findings of Cawelti (2014) that educators or teachers may need to focus on the improvement of indicators such as participation and achievement test to assess the performance and achievement of the educational institutions, thus in order to demonstrate effective leadership in improving student and school achievement, the teacher must have knowledge and understanding of the indicators.

The result of the study confirmed the findings of Sor (2012) that an assessment of the performance of student indicator determined areas of school outcomes: participation rate and achievement test that is used to assess the student and school performance were highly consistent. These indicators provide an appropriate portrait of school performance.

Predictors of Students Performance

Predictors of Participation Rate

The Adjusted R Square indicates that 0.912 of any changes in participation rate attributed to number of trainings attended and goals of teachers in teaching.

Table 6. Regression of Participation Rate on Independent Variables

Predictors	Beta	T-Value	Sig.
Numbers of training attended	1.002	121.038	000
Goals in teaching	.190	16.321	000

Adjusted R Square= 912
F= 6519.913
Sig. = .000

The beta coefficient indicates that for every standard deviation unit increase in the number of trainings attended; there is 1.002 standard deviation unit increases in the participation rate of the students. The t-value of 121.038 is significant with .000 exact probabilities. This finding implies that the more training attended by a teacher, the higher the participation rate of the students. The more knowledge, the more strategies on motivation they can apply to encourage students to participate. The findings support the study of Nathan (2013) that academic teacher are the most potent force in attaining quality learning because of its broad coverage and knowledge of the student's interest. Academic teacher should oblige his/her self to attend training or workshop in order to improve the capacity of his/her teaching strategies.

The second variable which registered as significant predictor of participation rate was goals in teaching. The beta .190 with t-value 16.321 was significant at the .000

levels. The finding revealed that teacher who used more strategies in teaching had the higher participation rate than those who taught in a traditional teaching. This implies that goal in teaching of academic teacher are more exposed to the different strategies, community linkages, meaningful lesson because of their different activities inside and outside of the classroom are the passes to convince and motivate the student to have interest in studying. The finding supports the study of Petrosino (2013) that strong motivation of the season teacher are most element force to participate the student in academic discussion because student achievement reflects on how teacher delivered the lesson. Academic teachers during their undergraduate studies received a multi-level of preparation through which competence in certain conceptual, behavioral and human skills have been achieved and developed.

Table 7. Regression of Participation Rate on Independent Variables

Predictors	Beta	T-Value	Sig.
Uniqueness in Teaching	.512	71.731	000
Integration of learning materials	.137	19.108	.000

Adjusted R Square= 998
F= 6561.546
Sig. = .000

It can be gleaned on Table 7 that there are two (2) predictors of participation rate. The first variable which entered into the equation is uniqueness in teaching and with a registered beta .512 and is significant at the .000 with t-value of 71.731

Second variable which registered significant influence on participation rate is integration of learning materials in classroom interaction. The beta coefficient .137 with t-value of 19.108 is significant at .000 level. (De Leon) found out that those who were assigned academic specialization were also academically prepared and exhibited higher autonomy and responsibility than those who were not. In the same study, teachers exhibited broader concern for the academic performance of the students.

Predictors of National Achievement Test (NAT) The Adjusted R square of .903 denotes that project GUIDE accounts for 90 percent of variance in the National Achievement Test (NAT) of the students.

Table 8.Regression of National Achievement Test (NAT) on Independent Variables

Predictors	Beta	T-Value	Sig.
Project GUIDE	1.002	120.098	.000

Adjusted R Square= .903
F= 17590.845
Sig. = .000

The project GUIDE registered significant influence on National Achievement Test (NAT) performance. The

beta coefficient 0f 1.002 with t-value of 120.098 is significant at the .000 level.

This suggests that the more strategies of the educators like project GUIDE was employed the higher the results of National Achievement Test (NAT) performance of the students. There seems to have a confirming indication using project GUIDE to know the strength and weakness of the students and converted to increase the achievement test. From that perspective, teachers' practices become crucial intervening measures, for if instructional reform was to affect most students, it would be mainly through teachers' practice.

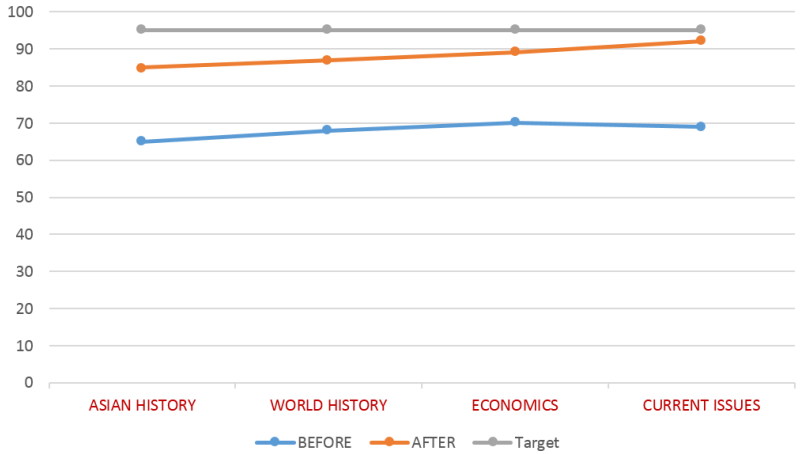

Figure 5
Comparison of Project GUIDE Before and After the Implementation

Figure 5 shows the comparison of project GUIDE to measure the effectiveness of this program as well as see the benefits of implementing the solution. The purpose of this is to improve the performance of the students in

Araling Panlipunan and National Achievement Test (NAT) and hit the target by 95%. Prior to the implementation, the students' performance in Asian History registered at 65% while after the implementation. it clearly increased to 85%, World History with only 68%, after the testing, it measured 87%, on economic aspect, student potentials marked 70% and outweigh the cost to 89%, and same with current issues critically identified with 69% while after the result of piloting, the scope of the change was largely 92%.

This study similarly identified in the School Improvement Program, states that testing the project GUIDE can facilitate buy-in of other educators and students. By seeing desirable results in the pilot testing phase, the season educator can convince other teachers and students that they can achieve expected results through implementing the solution. Because it provides an opportunity to revisit the difficulties that they encounter in order to be ready for the full implementation phase.

As Diez (2014) underscored in their study, facilitative teachers generally provide academic mindset and make use of a range of data inputs to inform decision-making, support the overall involvement and intervention process, and keep student organized and focused on the desired intervention outcomes.

Furthermore, the benefits of this study, could either be tangible/quantitatively measurable such as in the case of increase in students' performance in Araling Panlipunan and Achievement Test.

Summary of Findings

The treatment of data revealed the following salient findings.

1. The profile of the teacher-respondents in terms of teacher-related factors is as follows: majority of the teachers were at age bracket of 31-40 years old (12 or 40%). Most of the respondents in terms of teaching experience range from 2-5 years in service or (37%). A total of 30 or (35%) of the teacher-respondents attended school base training.
2. As to project GUIDE factor in terms of Goals and Uniqueness in teaching content were perceived by the respondents as Very Evident; Integrated learning materials content rated as Inadequate; and professional development content were perceived Moderate Evident.
3. Project GUIDE findings on the students' Performance in Araling Panlipunan, only the controlled group obtained (93%) or Very High while National Achievement Test rated as Average Mastery.
4. The status of project GUIDE after the implementation were increased the performance of the students in Araling Panlipunan.
5. On the Assessment of Project GUIDE in improving National Achievement Test in Araling Panlipunan of Grade 10 students both teacher profile and four of the project Guide factors- goals, uniqueness in teaching, integrated learning materials, professional development content for all the indicators were found have statistically significant relationship on the students' performance in Araling Panlipunan.

Conclusions

The empirical findings of this investigation led to the following conclusions.

1. Majority of the Araling Panlipunan teachers respondents belonged to the age bracket of 31-40 years old, teaching experience range from 2-5 years in service, and (35%) attended school base training.
2. Using of project GUIDE may led to higher participation rate in Araling Panlipunan and Improve National Achievement Test.
3. Hence the hypothesis which states that teacher-related factors, and project GUIDE factors may significantly influence the students' performance grades in Araling Panlipunan and Improve National Achievement Test is partly sustained.

Recommendations

The statistical findings of this study yield the following recommendations:

1. On the basis of findings, educators should find ways to increase their ability and capacity as those with academic background to improve and strengthen their organizational performance.
2. Enrichment of curricular program-project guide should be undertaken to cope with the needs of students and improve National Achievement Test academic performances.
3. A further study is recommended to determine other parameters not included in the study that may help improve the implementation of project guide.

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ACTION PLAN

Implementation of Project GUIDE

Activity	Expected Output	Person Responsible	Due date	Resources/ Budget
1. Design Seminar-Workshop; To teach like a champion	Training, Seminar – Workshop 1. Lecture 2. Workshop 3. Presentation of output 4. Demonstration	Randy C. Pantaleon	Sem-Break	1. Instructional Materials 2. PowerPoint presentation 3. laptop
b. Devices of 4As tools	GUIDE (*Goal, Uniqueness in teaching, Integration of learning materials, Developing and Educators*) a. Rubrics. b. Design	Randy C. Pantaleon		4A's Sheets
2. Designation of focal person	Focal Person In-Charge to supervise daily activity.	Principal Head Teacher		Appointment
3. Development of Tools.	4As Monitoring Check Sheets	Randy C. Pantaleon		Check Sheets
4. Monitoring & Evaluation of the conduct & output.	Improved teaching	Principal Head Teacher		Reports
5. Reporting of output & feedback.	Improved/increased the performance of teachers in the teaching strategies.			

Annex A. Three (3) Part Research Questionnaire

Part I. Teacher-Related Factors

The teacher-respondents were asked to give information on the following factors.

- Age
- Length of teaching
- Trainings attended

Part II. Project GUIDE Factors

A. Goals in teaching

B. Uniqueness in teaching

The teacher respondents were asked to give information on the Goals in teaching using the following rating scale.

4.20-5.00-	Highly Evident
3.40-4.19-	Evident
2.60- 3.39-	Moderate Evident
1.80-2.59-	Slightly Evident
1.00-1.79-	Not Evident

C. Integration of Learning Resources

D. Development

E. Excellent educators

Rating scale was provided in the following part of the questionnaire that corresponds to the respondents' level of degree of response on the specified variables.

4.20-5.00-	Very Adequate
3.40-4.19	Adequate
2.60- 3.39	somewhat adequate
1.80-2.59	Inadequate
1.00-1.79	None at all

EVALUATION OF THE DISCIPLINE ACTION COMMITTEE SYSTEM (DACSY) OF GOV. JUANITO REYES REMULLA SENIOR HIGH SCHOOL

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Abstract

The paper aimed to realize whether the use of Discipline Action Committee System (DACSY) could possibly minimize the workloads of its members in recording, updating and double-checking of misdemeanor data of its students. There are 56 respondents included in the study, wherein 28 teachers were purposively selected while 28 students were randomly selected. Action research was promulgated in the study. The collection of data was done through survey with the use of self-made survey instrument and based on the records of Discipline Action Committee. The gathered results (?X=2.18) clearly suggests an interpretation of Very Good which therefore significantly suggests that DACSY is a best practice to be implemented and an aid to the performance of Gov. Juanito Reyes Remulla Senior High School.

Keywords: *discipline, action*

Introduction

The Discipline Action Committee System is a simple scheme that serves as a behavior management among the learners anchored in the DepEd Order 40, s. 2012 or Child-Protection Policy. It gives support to positive reinforcement as a prelude to both warnings and finally sanctions as stipulated in the said DO that helps to promote an organized monitoring system in terms of disciplining students by their parents and school personnel; and records of students' misdemeanors inside the school. With the heavy task incorporated in the use of the system, the authors are encouraged to assess whether or not their organized processes can serve as best practice and will it minimize the workloads of the discipline action committee in recording, updating and double checking of misdemeanor data of students.

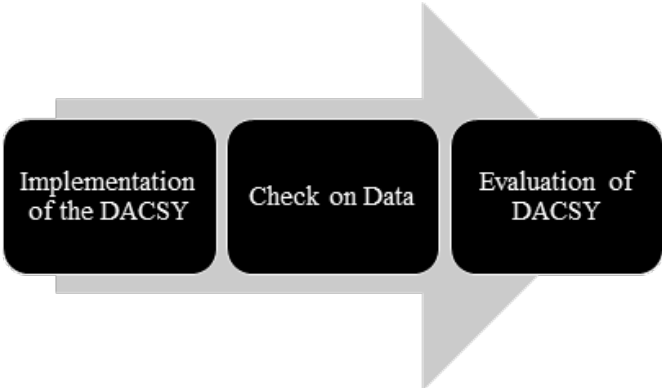
Specifically, the researchers aim to answer the following questions;

1. What is the perceived satisfaction of the user on the system?

2. What is the effect of the use of the system in relation to its intention or objectives?

3. How was the DACSY implemented?

Basically, the action research was stimulated with the following paradigm. It starts with the implementation of the system, then followed by confirmation on the available data to be checked and finally the assessment of the DACSY. The use of the scheme will further give an understanding how the study will achieve its objectives. More so, it further explains how will the DACSY can give a positive impact.



Methodology

Design

The research paper adapted a quantitative design which entails exploratory research. It is intended to direct future research as new techniques get developed. (Lynn, 2017). Basically, it generates new ideas.

Participants

A total of 56 respondents were randomly selected for the study. This consists of 50 students and 6 teaching personnel from Gov. Juanito Reyes Remulla Senior High School. Informed consent was also properly secured from the participants prior to their engagement with the study.

Instrument

A survey self-made evaluation sheet was used for the study for proper analysis of data. The survey form consists of four evaluation items that were correspondingly answered with frequency; 1= excellent, 2= very good, 3= good and 4=poor. Also, observation and time record were utilized. These three means of data gathering suggest a triangulation technique which give justifiable result of data.

Statistical tool used was through weighted mean. Accordingly, the evaluation rating is as follows; 1.0-1.45 = Excellent; 1.46-2.45= Very Good; 2.46 -3.45= Good; 3.46 – 4.0= Poor

Procedure

To address ethical concerns, proper procedure was carried out in the conduct of the study. First, informed consent was secured prior to the conduct of the evaluation. Then, analysis of the three sources of data was done.

Results

Analysis of the data was purposely handled well. It was recorded properly to answer the specific questions. More so, it gives the idea to explore more on the value which will lead to future research. The specific questions give light to the following:

1. Perceived satisfaction of the user on the system garnered a score of 2.18 which suggests a Very Good interpretation;

2. The effect of the use of the system in relation to its intention or objectives through observation seemingly submits to that the Discipline Action Committee by the used of its system minimized its workload in recording, updating and double-checking of recorded misdemeanor of GJRRSHS students; and

3. The DACSY was implemented in three phases; recording, updating and double checking. Significantly, based on time records it suggests that there is a decrease of consumed time when DACSY was used.

Discussion

The gathered results submit to the main objective of the study that the DACSY is a big help to minimize the workloads of the committee in-charge with Discipline Action of the school. Seemingly, it is also perceived by students that the use of DACSY is for their protection which serves as a positive reinforcement for them. It is therefore significant to imply that the use Discipline Action Committee System (DACSY) of Gov. Juanito Reyes Remulla Senior High School is a best practice that could be benchmarked by others.

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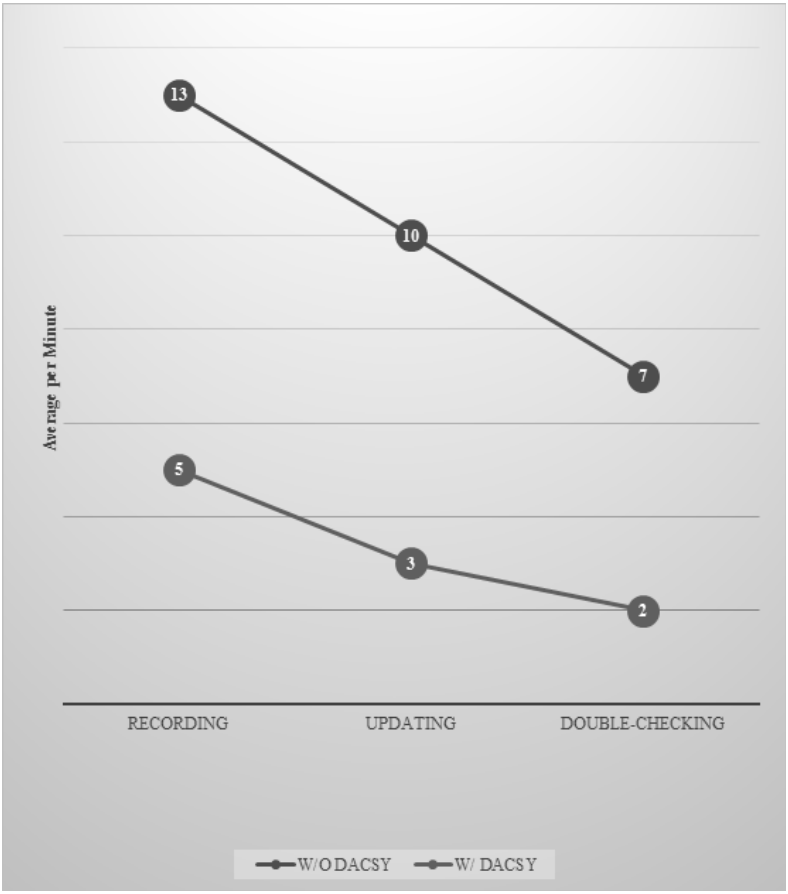
A. Time Record Graph With and Without the Use of DACSY



B. Table 1. Survey Results

EVALUATION ITEMS	FREQUENCY				WEIGHTED MEAN	INTERPRETATION
DAC	1 EXCELLENT	2 VERY GOOD	3 GOOD	4 POOR		
Time allotment of students in the DAC Office before the use of DACSY	10		20	17	2.79	GOOD
Time allotment of students in the DAC Office with the use of DACSY	32	32	4	2	1.68	VERY GOOD
Performance of DAC without the use of DACSY (Discipline Action Committee System)	11	1	16	18	2.73	GOOD
Performance of DAC with the use of the DACSY (Discipline Action Committee System) as presented during the 2nd PTA meeting	29	5	2	0	1.52	VERY GOOD
GRAND MEAN					2.18	VERY GOOD

MENTAL ABILITY, CAREER INTEREST AND ACADEMIC PERFORMANCE: BASIS FOR CAREER PLACEMENT PROGRAM AMONG SENIOR HIGH SCHOOL LEARNERS

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Abstract

The primary goal of the study was to identify if there is a relationship between academic performance and mental ability; and, academic performance and career interest in which the data were the bases for the career placement program. Its potential was to assess the three variables, namely, mental ability, career interest and academic performance to 119 learners of General Flaviano Yengko Senior High School. Descriptive correlation method was used in the study to examine the relationship between the variables. The primary data, the psychological test results and personal data, were gathered from school's Guidance Office and the academic grades were from Registrar's Office. A survey form was given to establish the demographic profile of the participants. The Pearson R correlation was utilized to reveal that there is a significant relationship between the academic performance and mental ability; however, there is no significant relationship between academic performance and career interest. As a result, this study divulged that only the mental ability can contribute in the career plan of the learners. Furthermore, though the researchers include the family income, parents' occupation and educational attainment, the research showed

that those factors did not influence the career path of the participants. A career placement program was formulated to assist and enhance learners' career choices and foster proper career planning. This study contributes to the development of the new K-12 curriculum through the implementation of the proposed program.

Keywords: *Mental ability, Career Interest, Academic Performance, Career Placement Program, K-12 Learners, K-12, General Flaviano Yengko Senior High School*

Introduction

Senior High School (SHS) level is a new educational curriculum in the Philippines which is officially implemented in the year 2016, though it has been implementing in 2012. This is the additional two years in academic for the basic education among Filipino learners. Under the Republic Act No. 10533 (Enhanced Basic Education Act of 2013), a student must complete Kindergarten, Grades 1 to 6 (elementary), Grades 7 to 10 (junior high school) and Grades 11 to 12 (senior high school)—in all 13 years—before you can receive a high school diploma. This only explains that a learner should undergo Senior High School as what the new educational system is concerned.

The first phase of K-12 implementation has been started on AY 2012-2013, in which the new curriculum is now being offered for Grade 1 and Grade7. For AY 2014-2015, the pioneer Grade 7 class is now at Grade 9, and in AY 2016-2017, they would be the first batch of Senior High School completers of the K-12 program.

The SHS goal is to prepare learners for their career path. The subjects will be taking cover topics that may help them for tertiary level. This focuses on the tracks and strands for the preparation in college. There are HUMSS (Humanities and Social Sciences), ABM (Accountancy, Business and Management), STEM (Science and Technology and Engineering and Mathematics), Arts and Design, Sports and TVL (Technical, Vocational and Livelihood).

The SHS curriculum is made up of core subjects in eight learning areas that all SHS learners will have to take, as well as applied and specialized track subjects which will be dictated by the track and the strand that a learner chooses. These are Oral Communication, Reading and Writing, Komunikasyon at Pananaliksik sa Wika at Kulturang Filipino, Pagbasa at Pagsusuri ng Iba't Ibang Teksto Tungo sa Pananaliksik, 21st Century Literature from the Philippines and the World, Contemporary Philippine Arts from the Regions, Media and Information Literacy, General Mathematics, Statistics and Probability, Earth and Life Science, Physical Science, Introduction to Philosophy of the Human Person, Physical Education and Health, Personal Development, and Understanding Culture, Society and Politics (Banal-Formoso, 2016,p.A15)

For the learners under the Science, Technology, Engineering and Mathematics (STEM) strand, Earth Science replaces Earth and Life Science and Disaster Readiness and Risk Reduction replaces Physical Science.

The K-12 is new to learners and to educational system. Selecting the right track and strand among learners is crucial since it is the starting point of their career. Some learners may refer on the result of their academic performance

in junior high, some will rely on their interest and some will review their mental ability test to choose the accurate field for them.

Mental Ability/ Intelligence Quotient (I.Q.) is the ability of the learners to understand and cognize things or situation using logical reasoning. It is also the power to learn, retain knowledge and acquire the significance of facts, truth, attitude and behavior.

Career Interest means the engagement of a learner to the particular activity for future job or work. It also means the attraction of the learners in a profession which manifest on what they do and like.

Academic Performance refers to the performance of the learners in the academe; it is also the numerical grade of learners every semester.

These three variables are the important things to identify if they have relationship and might affect the career placement of the learners. In such, according to Borchert (2002), work is one of the greatest blessings. Everyone should have an honest occupation. This statement gives impact throughout their lives. Since the learners are preparing for their career path, they must understand that choosing a track is significant for their future.

Furthermore, according to Gysber (2004), the goal for career tracking is for learners' plans to become pathways or guide through which learners can use the past and present to anticipate and prepare for the future. The learners should choose carefully the track that they want to; it will probably make or break their future.

Through these, the previous researches were the springboard as bases of the study. The research titled

Mental Ability, Career Interest and Academic Performance: Basis for Career Placement in Senior High School Learners. This study focused on SHS learners of General Flaviano Yengko Senior High School with a population of 119 learners. The offered tracks of the said school are ABM (Accountancy, Business and Management) and HUMSS (Humanities and Social Sciences). The research aimed to identify if there is a relationship between academic performance and mental ability; and, academic performance and career interest among the students of General Flaviano Yengko Senior High School, in which the data were the bases for the development of career placement program.

Statement of the Problem

The primary goal of this research was to identify if there is a relationship between academic performance and mental ability; and, academic performance and career interest among the learners of General Flaviano Yengko Senior High School, in which the data were the bases for the development of career placement program.

The study sought to answer the following questions:

1. What are the demographic profile of the learners in terms of:
   a. age,
   b. gender,
   c. family income,
   d. parents' educational attainment, and
   e. parents' occupation.
2. What are the levels of the mental ability of the learners?
3. What are the career interests of the learners?

4. What are the academic performances of learners in the first semester of school year 2016-2017?

5. Is there a significant relationship between the academic performance and mental ability; and academic performance and career interest of the learners?

Hypothesis

There is no significant relationship between the academic performance and mental ability; and, academic performance and career interest of the learners.

Significance of the Study

The result of this study would be a great contribution to the vast knowledge in relation to learners' achievements. Fundamental results of this investigation could be highly significant and beneficial specifically to the following:

Learners - as the potential Senior High School learners in the future, the findings of this study would inspire them to formulate and act upon on their career plans in the future.

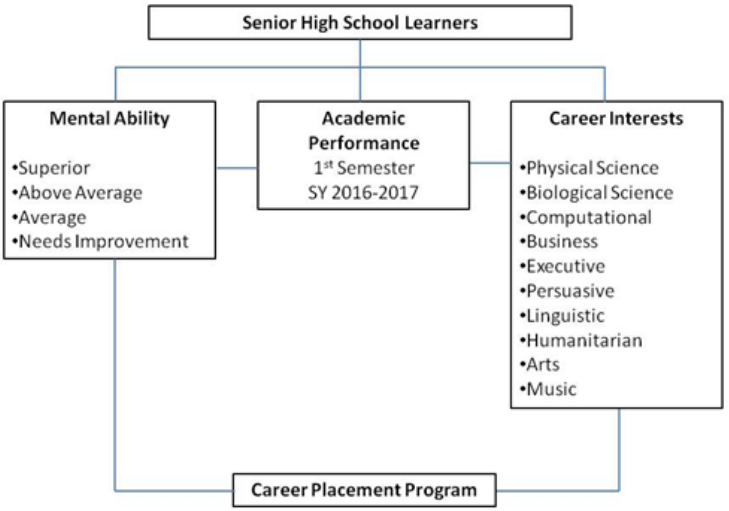
Teachers - this study would help them to reassert and focus more on their fields and subsequently cater a better learning experience for learners, especially for the teachers who would be teaching in Senior High School.

Guidance Counselors/Teachers – the study would help them to assist the learners in career planning with the use of the proposed career placement program.

School Administrators - This will enable them to find ways and means to improve the learners' abilities and skills that would empower them to pursue meaningful careers. They can also gain insights into the quality of education that they currently offer to the K-12 learners.

Curriculum Planners - This study would give insights to them in designing and implementing a feasible Senior High School curriculum that would teach the skills and knowledge that the learners need.

Future Researchers - this study will greatly help and inspire them to be more innovative and carry out the programs of Department of Education (DepEd) that will be beneficial to both the learners and teachers.



Conceptual Framework

Figure 1. Mental Ability, Career Interests and Academic Performance: Basis for Career Placement Program among SHS Learners

Figure 1 shows the schematic paradigm of the relationship the three variables: academic performance and mental ability, and academic performance and career interest among senior high school learners. Data were de-

rived from the three variables which were the basis for the proposed Career Placement Program to be implemented to the learners. This framework was conceptualized based on Human Cognitive Abilities by John B. Caroll (Jones, 2004).

Theoretical Framework

John B. Carroll and other modern psychometricians have come to a consensus that mental abilities follow a hierarchical structure, with g at the top of the hierarchy and other broad groups of mental abilities offering psychological import beyond g. Specifically, mathematical, spatial-mechanical, and verbal reasoning abilities all have demonstrated incremental (value-added) validity beyond g in forecasting educational and vocational criteria. Although mathematical, spatial, and verbal reasoning abilities do not have the breadth or depth of external correlates that g does, the incremental validity they offer makes them especially important for educational and vocational planning.

As what Thurstone theorized that interest may be defined as a tendency to make consistent choices in a certain direction without external pressure and in the face of alternatives, i.e. it represents a tendency to select certain activities or things in preference to certain others' (Asahan, 2015). Formerly, it was believed by Woodworth that interests reject inborn abilities but the recent trend is to emphasize the fact that interests are the product of individual's environment.

These concept and theory were the bases of the study since the focus of the research is to identify if there is a relationship between academic performance and mental ability; and, academic performance and career interest

among the learners of General Flaviano Yengko Senior High School, in which the data were the bases for the development of career placement program. From the conceptual framework, it tackled the flow of the study in which result to the career placement of the learners. It was relevant in identifying first the variables such as mental ability based on the I.Q. test given by the Guidance Counselor; academic performance from the 1st semester grade of the learners in the school year 2016-2017; and, career interest based on the test given by the Guidance Counselor. Furthermore, as to what John Caroll and other modern psychometricians emphasized the hierarchical structure of the broad groups of mental abilities offering psychological import specifically, mathematical, spatial-mechanical, and verbal reasoning abilities. This idea was appropriate to cater the study which dealt with the variables: mental ability, academic performance and career interest. Thurnstone theorized that interest may be defined as a tendency to make consistent choices in a certain direction without external pressure and in the face of alternatives; this research will reveal whether the latter statement will be proven or not. However, the researchers decided that it will greatly contribute in the study.

Methodology

Research Design

The researchers employed the descriptive correlation type of research to attain the objectives of the study. This type of research design identify if there is a relationship between academic performance and mental ability; and, academic performance and career interest among the learners of General Flaviano Yengko Senior High School.

Descriptive research was utilized to describe data and characteristic of a certain population or phenomenon. According to Shields and Rangarjan's research (as cited in Asahan, 2015), descriptive research does not answer the questions such as when, why, or how. It rather explains the "what" questions in the study such as the characteristic of the population. This method uses categorical scheme in describing characteristic of population and situation also known as descriptive categories. It involves collection of data that represents phenomena and then formulate, organizes and describe the process of data gathering as stated in the study of Glass & Hopkins (as cited in Asahan, 2015). It represents results such as measure of central tendency, percentage, and correlation.

Locale

This research was conducted in General Flaviano Yengko Senior High School spearheaded by its Principal, Mr. Ricardo R. David III. It is located in Barangay Pasong Buaya II, Imus City, Cavite. This school is one of the four

senior high schools established by the Schools Division Office of Imus City to cater the grade 10 completers. It was first operated for the grade 11 learners for the school year 2016-2017. The study covered from June 2016 up to February 2017. The peak of data gathering held on June to November 2016.

Participants of the Study

The population of the study included the 119 learners enrolled in the General Flaviano Yengko Senior High School. The researchers used the total population sampling since the number of the learners is significant in providing data for the study. Total population sampling is a type of purposive sampling technique where you choose to examine the entire population that has a particular set of characteristics (Laerd, 2016). The 119 participants were all grade 10 completers and under the late adolescence stage.

Data Gathering Procedure

This research used two sources of data: primary data source and secondary data source. The primary data sources were the participants' psychological test results and personal data which are all available at the school's Guidance files; and first quarter grades which are available at the Registrar's Office. The secondary sources of data were information from books, journals, articles, theses and online articles that were used in presenting the related literature.

Before the gathering of data, the researchers asked

permission to the designated personnel of General Flaviano Yengko Senior High School to access the necessary data for the research.

Research Instruments

This study used standardized psychological tests and survey form as instruments. The survey form indicates the demographic profile of the grade 11 learners. MD5 Ability Test and Thurstone Interest Schedule were used to establish the two variables in the study. The MD5 Mental Ability Test is designed to assess mental ability quickly and easily over a wide range of educational and ability levels, in staff selection, placement and counselling.

The test consists of 57 items in a non reusable booklet which includes finding missing letters, numbers or words, represented by the corresponding number of asterisks. On the other hand, Thurstone Interest Schedule is designed as a counseling instrument at the secondary school level. The schedule consists of 10 vocational areas: Physical Science, Biological Science, Computational, Business, Executive, Persuasive, Linguistics, Humanitarian, Artistic and Musical.

Data Analysis

For the researchers to be able to interpret and analyze the data, the following parameters were used:

Table 1

Raw Score and Verbal Interpretation for Mental Ability

Raw Score	Verbal Interpretation
1 -12	Needs Improvement
13 – 21	Below Average

22 – 29	Average
30 – 35	Above Average
36 – 57	Superior

For the Career Interests, the lowest possible score for a vocational area is 0 and the highest possible score is 20. The scores may be represented in a profile.

Statistical Tool

The data collected in this study are subject to certain statistical treatments. For data analysis, the following statistical methods were used:

Frequency and Percentage. Percentage frequency shows the percentage of observations that exist for each data or groups of data. Particularly, it is use as a method of expressing the relative frequency of survey responses and other data (Lavrakas, 2008). Frequency and percentage is derived by multiplying each of the relative frequency values by 100. The percentage and frequency distributions were used to classify the participants according to their demographic profile such as their age, gender, length of work experience and type of work. The percentage of each item in the questionnaire was computed by dividing it with the total number of participants who will answer the questionnaire; this answered the problem number 1.

Mean. Statistical Mean is the average that is used to calculate the central tendency of the data in a question. It is obtained by summing up all the data points in a population and then dividing the total by the number of points. The

resulting number is known as the mean or the average (Janssen, 2010). Mean is one of the statistical techniques that were used by the researchers to identify the average scores of each subscale. The researchers will use this statistical tool to answer problem number 2.

Pearson Product-Moment Correlation Coefficient or Pearson's r is the most common statistical technique used for determining a relationship between two variables that are linearly related (Farlex, 2013). The two variables in this study are self-efficacy and social adaptability. This statistical tool answered problem number 4.

Results and Discussion

This chapter deals with the presentation, analysis and interpretation of the results acquired through the gathering of data. The information was interpreted for the purpose of answering the questions in the statement of the problem.

Problem no. 1 What are the demographic profile of the learners in terms of age, gender, family income, parents' educational attainment, and parents' occupation?

The following tables presented the demographic profile of the participants in the study. These include age, gender, family income, parents' educational attainment, and parents' occupation. From the 119 participants, the following are the results:

Table 2.Frequency Distribution of the Participants According to Age

Age	Frequency	Percentage
21 – 23	1	0.84
18 – 20	16	13.45
15 – 17	102	85.71
TOTAL	119	100

Table 1 shows that out of 119 participants who participated in the study, one-hundred two of them or 85.71% are within the range of 15 – 17 whereas 16 participants or 13.45% belong to the age group of 18 to 20. The age range of 21 to 23 has only 1 participant who joined as the subject of the present study. This indicates that majority of them are in the appropriate age range of Senior High School learners based on the theory of human development of Robert Havighurst, a well known developmental psychologist (Gazzingan et al., 2013). Havighurst emphasized that one of the adolescents' developmental tasks is to prepare for an economic career and one way for adolescents to prepare for it is through education.

Table 3. Frequency Distribution of the Participants According to Gender

Gender	Frequency	Percentage
Male	63	52.94
Female	56	47.06
TOTAL	119	100

Table 3 shows that, the gender of the learners respond-

ing consisted of 63 male with 52.94% and 56 female or 47.06%. According to Borchet (2002), gender has been long thought of as an opportunity issue in which research shows that while barriers for both male and female are diminishing statistically, it may not reflect the underlying affective valuing that must go with equal opportunity. The male participants dominated the population as the subject in the study.

Table 4. Frequency Distribution of the Participants According to Family Income

Family Income	Frequency	Percentage
50,100 – above	2	1.68
45,100 – 50,000	1	0.84
40,100 – 45,000	2	1.68
35,100 – 40,000	2	1.68
30,100 – 35,000	3	2.52
25,100 – 30,000	8	6.72
20,100 – 25,000	10	8.40
15,100 – 20,000	16	13.45
10,100 – 15,000	23	19.33
5,100 – 10,000	36	30.25
1,000 – 5,000	16	13.45
TOTAL	119	100

In this table, it shows that 36 participants earned 5,100 to 10,000 family income with 30.25 % in which 23 participants answered 10,100 to 15,000 with a percentage of 19.3. Based on the table, there are similar frequency of family income in the range of 15,100 to 20,000 and 1,000

to 5,000 with both 16 respondents, hence; the 8.40% or 10 participants dropped in 20,100 to 25,00 income. The remaining participants are 3 or 2.52% with 30,100 to 35,000; the family income range of 35,100 to 40,000, 40,100 to 45,000 and 50,100 and above have the same number of participants of 2 or 1.68%. Only 1 falls in 45,100 to 50,000 with a percentage of 0.84. This point outs that most participants have lower incomes which sustain their everyday expenses. It also shows that majority of the families of the learners in the public school have insufficient income. This data were also supported by the results in the parents' educational attainment and occupations.

Table 5. Frequency Distribution of the Participants According to Parents' Educational Attainment - Mother

Mothers' Educational Attainment	**Frequency**	**Percentage**
Post Graduate	0	0.00
College Graduate	16	13.45
College Level	16	13.45
High School Graduate	40	33.41
High School Level	26	21.85
Elementary Graduate	15	12.61
Elementary Level	6	5.04
TOTAL	119	100

Table 5 reveals the educational attainment of their mother, most of the participants' mom graduated in high school with 40 frequencies or 33.41%. On the other hand,

the high school level achieved by 26 or 21.85% mothers. College graduate and college level educational attainments have the same frequency of sixteen or 13.45%. Fifteen or 12.6% moms graduated in elementary while only six of them belong to elementary level. None of them achieves the postgraduate education. Hairston explained (as cited in Olaosebikan ,2014) that mothers were cited as particularly influential because they provided support that eased participant's apprehensions about education. This can point that mother has a big influence on the career placement among learners. As what Otto said (as cited in Olaosebikan, 2014) that all kinds of people grind away at them but parents are the big rock in the tumbler. Parents serve as major influences in the lives of their children.

Table 6. Frequency Distribution of the Participants According to Parents' Educational Attainment - Father

Fathers' Educational Attainment	Frequency	Percentage
Post Graduate	1	0.84
College Graduate	23	19.33
College Level	19	15.97
High School Graduate	49	41.18
High School Level	17	14.29
Elementary Graduate	6	5.04
Elementary Level	4	3.36
TOTAL	119	100

In the educational attainment of their fathers, this table

gives the result where 49 or 41.18% high school graduate dominated this category whereas the second highest is the college graduate with 23 frequencies or 19.33%. Nineteen fathers achieved the college level with 15.97 and seventeen of them reached the high school level with 14.29%. Elementary graduate are 6 or 5.04% hence, elementary level has 4 or 3.36%. Only 1 father accomplished the post graduate category. Hairston (2000) stated that factors that influence career choice processes, family members particularly parents are the most influential determinants of career plans, occupational aspirations and occupational expectations. This explains that parent's educational attainment can affect the career placements of the learners since they always see their parents working or talking about different things specifically their achievements in life.

*Table 7. Frequency Distribution of the Participants According to Parents' Occupation - Moth*er

Mothers' Occupation	Frequency	Percentage
Assistant Pharmacist	1	0.84
Barangay Official	1	0.84
Businesswoman	6	5.04
Caretaker	1	0.84
Cashier	1	0.84
Cook	1	0.84
Entrep/Sari-Sari owner	1	0.84
Farmer	1	0.84
Health Officer	1	0.84
Helper	2	1.68

Housekeeper	5	4.20
Housewife	73	61.34
Make-up Artist	1	0.84
OFW	5	4.20
Optometrist	1	0.84
Sales agent	3	2.52
Supervisor	1	0.84
Teacher	2	1.68
Therapist	1	0.84
Utility	1	0.84
Vendor	2	1.68
Deceased	2	1.68
None	6	5.04
TOTAL	119	100

This table presents the mothers' occupations of the participants. Most of moms are housewife with 73 or 61.34% which indicates that traditionally, women should be at home. There are 6 businesswomen and 6 unemployed with 5.04% however; the housekeeper and OFW have same frequency with 5 or 4.20%. Three moms are sales agent. Vendor, teacher, helper and deceased have same frequency of 2 or 1.68%. Then, the rest occupations such as assistant pharmacist, barangay official, caretaker, cashier, cook, sari-sari owner, farmer, health officer, make-up artist, optometrist, supervisor, therapist and utility have the same number of respondent which 1 or 0.84%. A study by Kniveton (as cited in Jungen, 2008) research shows that parents have greater influence than teachers on career choices and can even influence what major their children choose to pursue in college. It is believed that children

have high respect to their parents and mimic them whatever they do. In fact, as what Havighurts (2004) points out that children as young as five years old begin to identify with the occupation of their mother or father. Parents start influencing career decisions as soon as their children pronounce their job title. These cited studies were contrasted by this finding. Learners were not influenced by the major occupation of their mothers which is being a housewife. Based on the career counseling done by the Guidance Office, to some, their career choice is being influenced by their parents' suggestions based on their economic needs.

Table 8. Frequency Distribution of the Participants According to Parents' Occupation - Father

Fathers' Occupation	Frequency	Percentage
Aircraft Mechanic	1	0.84
Black Smith	1	0.84
Brgy. Kagawad	1	0.84
Businessman/ Self-Employed	12	10.08
Caddie	1	0.84
Carpenter	3	2.52
Chef	1	0.84
Construction Worker	3	2.52
Contractor	4	3.36
Delivery Man	1	0.84
Driver	29	24.37
Electrical Engineer	1	0.84
Farmer	10	8.40

Fish Vendor	1	0.84
Foreman	2	1.68
Helper In Warehouse	1	0.84
Liason Officer	2	1.68
Manager	1	0.84
Office Staff	2	1.68
Ofw	5	4.20
Painter	2	1.68
Seaman	4	3.36
Security Guard	3	2.52
Teacher	2	1.68
Utility	1	0.84
Vendor	3	2.52
Welder	1	0.84
None	15	12.61
Deceased	6	5.04
TOTAL	119	100

In the case of father's occupation, this table shows that twenty-nine head of the family are drivers and fifteen from them do not have job. Businessmen are 12 or 10.08% whereas farmers are 10 or 8.40%. Six from them are already deceased while five or 4.20% are OFW. Four participants have contractor father and same number of seaman. Security guard, carpenter, construction worker and vendor have the same percent of 2.52%. The remaining jobs such as aircraft mechanic, blacksmith, brgy kagawad, caddie, chef, delivery man, electrical engineer, manager, utility and welder have 1 frequency or 0.84%. Parents may also be unaware of the impact of their norms and values have on their child's career choice. According to Biddle, Bank,

and Marlin (as cited in Simpson, 2003), it is rather than responding directly to external pressure, students internalize parental norms and preferences and act, therefore, in accordance with those norms. Since parental norms and values are likely to affect career choice, it is important that parents understand the subtle ways that they communicate their norms and values on a regular basis. Same with the mother's occupations' findings, father's occupation did not influence the learners' choice of career.

Problem no. 2 What are the levels of the mental ability of the learners?

Table 9. Frequency Distribution of the Participants According to their Levels of Mental Ability

Levels of Mental Ability	Frequency	Percentage
Superior	1	0.84
Above Average	5	4.20
Average	23	19.33
Below Average	44	36.97
Needs Improvement	46	38.66
TOTAL	119	100

Table 9 shows the level of mental ability among the participants. Forty-six from them needs improvement based on their intellectual capacity. Next has the frequency of 44 or 36.97% who has below average level. Then, twenty-three or 19.33% have an average level while five from them have above average. And, only 1 participant has superior

level or 0.84%. General Mental Ability predicts both the occupational level attained by individuals and their performance within their chosen occupation (Schmidt & Hunter, 2004). This study reveals that learners can choose their track based on the level of their intellect. Although considering the learners' experience, they did not choose their career based on their intellectual capacity, their academic performance became their basis for their decision.

Problem no. 3 What are the career interests of the learners?

Table 10. Frequency Distribution of the Participants According to their Career Interests

Career Interests	Frequency	Percentage
HUMSS	**25**	**21.01**
HUMANITARIAN	7	5.88
LINGUISTICS	12	10.08
PERSUASIVE	6	5.04
ABM	**43**	**36.13**
BUSINESS	18	15.13
COMPUTATION	15	12.61
EXECUTIVE	10	8.40
STEM	**12**	**10.08**
BIOLOGICAL SCIENCE	2	1.68
PHYSICAL SCIENCE		
ARTS AND DESIGN	**39**	**32.77**
ARTS	21	17.65
MUSIC		

TVL	0	0
SPORTS	0	0
TOTAL	**119**	**100**

Based on the result of the Career Inventory Test, this table shows the career interests of the learners. The ABM (Accountancy, Business and Management) has the highest number of track with 43 or 36.13. This covers business with 18 or 15.13%; computation has 15 or 12.61% and executive field has 10 or 8.40%. In Arts and Design track, the areas that suit in the ability of the learners are Arts with 18 or 15.13%, however Music has 21 or 17.65%. The total number of responses is 39 0r 32.77% which implies that this track has the lesser number of responses than ABM. The HUMSS (Humanities and Social Sciences) has areas such as Humanitarian with 7or 5.99%; Linguistics with 12 or 10.08; and; Persuasive with 6 or 5.04%. As a result, this track lands in the third rank with 25 or 21.01%. Furthermore, it is also revealed that from the result, there are learners who are interested with STEM (Science, Technology, Engineering and Mathematics) which covers biological science that has 2 or 1.68% and physical science with 10 frequency or 8.40 with a total of 12 or 10.08%. The Technology Vocational and Livelihood (TVL) and Sports receive zero which means that students are not interested in the said tracks.

This data only proves that those learners who are enrolled in the ABM and HUMSS tracks do have other career interests like STEM and Arts and Design. Based on the career counseling done by their guidance facilitator, there are several reasons why they are not properly enrolled according to their interest: some learners did not

benefit from the career guidance program that their former school offered to them, some are still confused on what career to pursue and a number of learners still did not understand the concept of this new educational curriculum.

Problem no. 4 What are the academic performances of learners in the first semester of school year 2016-2017?

Table 11. Frequency Distribution of the Participants According to their Academic Performances (1st Sem, SY 2016-2017)

Academic Performances	Frequency	Percentage
Outstanding	34	28.57
Very Satisfactory	38	31.93
Satisfactory	40	33.61
Fairly Satisfactory	6	5.04
Did Not Meet Expectations	1	0.84
TOTAL	119	100

Table 11 shows the academic performance of the students in the first semester of school year 2016-2017. Majority of the participants got satisfactory with 40 or 33.61% hence, thirty-eight or 31.93% reached the very satisfactory. There are outstanding students with 34 or 28.57%; six has fairly satisfactory grade and only 1 student did not meet expectation with 0.84%. Based on the result, although most of the participants have a result of Needs improvement in their mental ability, they can still excel in academic. This data proves that mental ability is not the sole factor in or-

der to excel academically. Personal characteristics such as perseverance and determination, work values and setting goals may greatly contribute to increase the learners' academic standing (Wong - Fernandez, 2016).

Problem no. 5 Is there a significant relationship between the mental ability, career interest and academic performance of the learners?

GPA VS	COMPUTED PEARSON-R	COMPUTED P-VALUE	DECISION	REMARKS
Mental Ability	0.3840	0.0000	REJECT HO	SIGNIFICANT
Career Interests	-0.0796	0.3893	FAIL TO REJECT HO	INSIGNIFICANT

Table 12. Correlation between General Point Average (Academic Performance) and Mental Ability of the participants and Correlation between General Point Average (Academic Performance) and Career Interests of the participants.

This table presents the main purpose of the study in which Pearson – R was used to correlate the three variables – General Point Average (GPA), Mental Ability and Career Interest. As GPA and Mental Ability correlated, the result is significant with a computed Pearson-R of 0.3840 and computed value of 0.000 and has a decision of REJECT HO or reject hypothesis. This only reveals that there is a significant relationship between GPA and Mental Ability of the learners. Hence, according to Vock (2011), traditionally, general cognitive ability (g) has been considered to be the best single predictor of academic achievement. The attempts to identify specific intelligence factors that could improve the prediction of academic achievement beyond

the impact of a g-factor typically failed since g appeared to account for virtually all sources of predictable variance in academic achievement. The mentioned research indicates that it contrasts the results of the study.

The data also prove that intelligence plays a vital role in academic performance. As to what Howard Gardner's Multiple Intelligences (Gazzingan, 2013) implies to education, all learners have distinct intelligences that they may possibly develop in order for them to excel in school. Teachers may also take into consideration the learners' ways of knowing to aid learners' capacity to learn.

General Point Average (GPA) and Career Interest among learners are not significantly correlated since the result is insignificant with Pearson R of -0.0796 and computed value of 0.3893 that has a decision of Fail to Reject HO which implies that there is no significant relationship between academic performance and career interest. This data connotes that even participants are not properly aligned to their career interest still they manage to perform and achieve in school. Therefore, learners can concentrate and be able to finish their education even if they are not properly associated with their career interest.

Conclusion and Recommendation

Conclusion

Based on the findings, the following conclusions were drawn:

1. Most of the participants are in the age range of 15 – 17 years old which denotes that they have appropriate years in junior high school, completed

4 years, to continue studying for senior high school.

2. The male participants dominated the population of the participants which reveals that majority of the enrollees in General Flaviano Yengko Senior High School are boys.
3. Five thousand to ten thousand family incomes of the participants indicate that many of them have insufficient money for family since they are studying public school and cannot afford private institution. It also reveals that they have this kind of family income because of the type of the occupations of the parents which bring home money in this salary range of 5 to 10 thousand pesos. Based on the research, not all members of the family are working; it is also mentioned that many parents are unemployed or housewife.
4. Most of the participants' mother graduated in high school which can probably influence their children in their point of view in life specifically in pursuing their career.
5. High school graduate head of the family dominated the category which affects the perspective of the learners in choosing their career.
6. Based on the Intellectual Quotient (I.Q.) test given by the Guidance Office of the school, forty-six from them needs improvement which can affect their academic performance.
7. Majority of the students are interested in ABM (Accountancy, Business and Management) which is similar with population of ABM in General Flaviano Yengko Senior High School. However, it is revealed that there are some tracks in which learners are interested such as Arts and Design and STEM; and only few of them

are interested with HUMSS which contrast in the number of learners enrolled in the offered track.

8. The academic performance of the learners in the first semester of school year 2016-2017 is also an important factor in the study. Majority of the participants got satisfactory and another big percent had outstanding rank which proves that despite of the “needs improve - ment” result of the students in I.Q test, they can still achieve academically.
9. The study reveals that there is relationship between General Point Average (GPA) and Mental Ability of the learners.
10. General Point Average (GPA) and Career Interest among learners are not significantly related.

Recommendation

In view of the stated conclusion, the following recommendations are made:

1. As the result showed, it is recommended that learners can use this study as a basis in choosing their career plans especially reviewing the I.Q. test result, academic performance and career interest.
2. Teachers are recommended to give activities and various strategies that can enhance their academic performance, mental ability and career interest. With this, it can cater better learning experiences among learners.
3. The Guidance Counselor can utilize the output of the study, the proposed career placement program, to further assist the learners in career planning and evaluate its effectivity.

4. The School Administrators is recommended to use the result of the study to enable them to find ways and means to improve the learners' abilities and skills that would empower them to pursue meaningful careers. They can also gain insights into the quality of education that they currently offer to the K-12 learners.
5. This study will give insights to curriculum planners in designing and implementing a feasible Senior High School curriculum that would teach the skills and knowl edge that the learners need.
6. This study will greatly help and inspire the future researchers to be more innovative and carry out the programs of Department of Education (DepEd) that will be beneficial to both the learners and teachers. For further research, they can utilize the tools, instruments and variables however they may use another population or variables.

PROPOSED CAREER ENHANCEMENT PROGRAM FOR SENIOR HIGH SCHOOL

RATIONALE

Senior High School (SHS) level is a new educational curriculum in the Philippines which is officially implemented in the year 2016. This is the additional two years in academic for the basic education among Filipino learners. A learner is required to study for 13 years as his basic education before he can receive a high school diploma.

In this new curriculum, a learner must be enrolled to a track/strand that would prepare him academically in pursuing his college education or prepare him for a job after

graduation. Based from the findings of this study, those learners who are enrolled in the ABM and HUMSS tracks do have other career interests like STEM and Arts and Design. This data was supported by results of the conducted random career counseling. Learners who are currently enrolled in Senior High School confessed that they are still experiencing confusion. Furthermore, others fail to be assisted by their former career guidance program from former school which results to confusion on what career they will pursue. Consequently, a number of learners still did not understand the concept of this new educational curriculum. The study also proved that that intelligence plays a vital role in academic performance. However, learners who are not properly aligned to their career interest still manage to perform and achieve in school.

This Proposed Career Placement Program plays an important role to address the findings of the study. The success of this program must be collaboratively done by all teachers, guidance counselors and school administrators and of course the learners.

Program Description

The Proposed Career Placement Program for Senior High School learners was developed to address learners' concerns pertaining to career planning based on the findings of this study. The program consists of career activities, which are suited to the needs of every Senior High School learner. It focuses on the enhancement of the learners' appropriate career choices and career planning.

Goal of the Program

The program seeks to address the findings of this study. Specifically, it aims to enhance learners' career choices and foster proper career planning. It is expected that after the implementation of the program, learners would be able to make the right career choice and plan appropriate career based from their abilities, personality, interests and work values.

I. Delivery Mechanism of the Program

The Career Enhancement Program would like to target the personal, psycho-social and academic aspects of a learner; the expected outcome is subjective since the learners will decide for their own career choice at the end of the program.

There are seven activities in the program and can be implemented whole year round. The effectiveness of the program will depend on the depth of dedication and willingness to implement such activity and the cooperation and unity of the people involved specifically the learners.

II. Contents of Career Enhancement Program

The Career Enhancement Program for Senior High School learners is composed of developed seven activities based on the abilities, personality, interests and work values of the learners.

The designed activities: Career Orientation, Career Assessment, Modular Career Talk, Career Counseling/ Coaching, Career/Vocational Fair, Simulation / Immersion and Assistance for College/Job Application are developed to address the needs and concerns of learners in enhancing their career choices.

VI. System of Evaluation of the Program

To determine if the extent of the program is achieving its specific objectives, the persons concerned may conduct a survey that would serve as program evaluation. Finding the right career and enabling to pursue it are the best indicators in evaluating this program. Finally, in the process of the implementation of the program, consultation with experts may help in determining which part of the program needs to be reinforced and magnified, and which part needs to be eliminated, changed or modified for better assisted Senior High School learners.

GRID OF CAREER ENHANCEMENT PROGRAM FOR SENIOR HIGH SCHOOL

ACTIVITY TITLE	OBJECTIVE/S	TIME FRAME	STRATEGY	EXPECTED OUTCOME
Career Orientation for Learners and Parents	• To inform parents and learners on the program provided by the school on the proper process of career planning.	June	Group Assembly	Informed parents and learners about career planning.
Career Assessment - Mental Ability - Career Interest	• To provide for the individual profile of learners in areas such as skills and abilities to aid them for better career planning.	June – July	Group Testing	Comprehensive learners' profile is available to aid career counseling service.
Modular Career Talk - Career Concepts - Factors that Influence Career Choices - Career Development	- To aid learners a comprehensive explanation on different career concepts - To disseminate valid and usable information about career concepts	August – September	Small Group Talk / Classroom Discussion during Personal Development	Learners are enlightened and equipped on the career/occupation they will pursue after Senior High School.

Theory & Stages - Skill Assessment - Career Interests - Career Clusters - Occupational Environment & Interests - Career Road Map/Timeline	and choices, career development theory and stages, career assessment and other related areas to assist learners decide and plan their career. -			
Career Counseling / Coaching	• To assist the learner in the form of helping him identify, understand, and solve his difficulties specifically in career planning. • To discuss individually the learner's skills and abilities needed to help him decide for his career	October – November	Individual Career Counseling / Coaching	Well-rounded and equipped learners to step on the stage of their development which is college/career life.
Career / Vocational Fair	• To help learners secure the most effective relationship between their interests, needs and abilities to the different programs the school offers; to a job or to the next step in his educational or personal program.	December	Career Fair - Booth Type	Assisted learners in finding an appropriate place in the world of work and/or college life, which appeals to their interests and challenges their abilities.
Simulation / Immersion	• To aid learners to have a tangible experience to the career they are planning to take.	January	Workshop Type / 2-Week Work Immersions	Learners with substantial knowledge and experience about the career path they will be taking.
Assistance for College/Job Application	• To assist learners with necessary materials, information and services pertaining to college/job application.	February - March	Distribution of Forms, Dissemination of Test Schedules For College Application and Hiring Notification for Job Application	Learners are properly guided with the materials and procedure in college/job application.

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Correlations

		MD5	TIS	GPA
MD5	Pearson Correlation	1	.007	.384**
	Sig. (2-tailed)		.942	.000
	N	119	119	119
TIS	Pearson Correlation	.007	1	-.080
	Sig. (2-tailed)	.942		.389
	N	119	119	119
GPA	Pearson Correlation	.384**	-.080	1
	Sig. (2-tailed)	.000	.389	
	N	119	119	119

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

CAUSES OF ABSENTEEISM AMONG GRADE SIX - PUPILS OF ALAPAN I ELEMENTARY SCHOOL

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Abstract

Alapan I Elementary School is one of the performing schools in the Schools Division of Imus City. This is one reason why teachers are consistently checking the attendance of their pupils particularly in Grade Six to prevent absences which can really affect scholastic performance. As the opening of classes started for school year 2016-2017, constant monitoring of attendance among Grade Six pupils was conducted by the researcher. Within the first quarter, it was observed that some pupils are always absent in class as reflected in SF2. It is very difficult to achieve a perfect attendance among Grade Six pupils in the morning session. Absenteeism among pupils of Alapan I Elementary School is one problem which the researcher would like to minimize if not totally eradicate. This is the reason why the researcher is conducting this kind of research to find an accurate analysis, understand and realize the causes and provide some necessary actions, recommendations and interventions to resolve the said pupils' problem for the improvement of the teaching learning process.

Researches, interviews, survey and home visitations were conducted to determine the real causes of absenteeism of pupils. Fifty-four Grade Six pupils from five sections were made as respondents in the survey. The questionnaire used in the survey was based on the survey form of

Morcia. Varied reasons were gathered as causes for their absences. Based on the survey result, the top ten causes of pupil absences were the following: 1.Can not wake up early 2. Flu/fever 3. Reprimanded by teacher 4. Headache 5. Classroom atmosphere 6. Doing many household chores 7. Parents ask them to absent from class 8. House is far from school 9. Toothache 10. Diarrhea and stomach ache.

To test the validity of the result, home visitation were conducted to interview their parents and families. It was found out that 52 out of 54 pupils responded correctly while two of them told an allegation to cover up their laziness in schooling.

Among the reasons cited, personal attitude (Can't wake up early) and health problems were the most prevalent causes of absenteeism. Recommendations were made to the school principal for possible solutions to address problems on absenteeism of pupils. Parents and pupils' orientation on personal hygiene was conducted. Deworming and hand washing were intensified and school-based feeding programs was strengthened. LAC sessions of teachers on classroom management were conducted to help resolve the issue.

Introduction

One of the greatest achievement of teachers is pupils are being educated from what they taught. Their gained knowledge will be utilized to achieve their self-selected goals and aspirations for a brighter future. Teachers prepare lesson plans with attainable objectives, make power point presentations as well as varied activities hoping that their pupils will be motivated to interact and enhance their learning interests to attain their learning goals and objectives. It is really disappointing to realize that despite of the teachers' efforts in preparing such lessons for the day, there are many absentee pupils that the teachers need to understand the reason why they did so. The responsibility to determine causes and possible solution lies on the hands of the teachers. Some studies show that better attendance is greatly related to gain higher academic achievements specifically for those children coming from the lower socio-economic level. Pupils who attended classes regularly get higher scores in the test compared to their peers who are frequently absent in their classes. So the teacher should consistently monitor the pupils' attendance to determine the issue and make some necessary actions and interventions to resolve the pupils' problem on absenteeism.

According to Child Trends Org., Absenteeism refers to chronic or habitual absences of pupils in attending classes. It is usually defined as missing ten percent or more of school days. This is one factor of having failing grades if not resolve. Absent pupils have difficulty coping with the lesson requirements needed in their Grade level. Sometimes this factor leads to undesirable outcomes such

as failure and later dropping out from school. Awareness on this factor can save the pupil's at risk as well as their good future.

This study was conducted to find out the causes of absenteeism among the Grade Six pupils of Alapan I Elementary School. Below is the survey form that was created to determine the most prevalent factors of pupils' absenteeism.

PHYSICAL FACTORS

- 1.House is far from the school
- 2.It is unsafe to go to school
- 3. No companion in going to school since it is far

A. HEALTH FACTORS

- 1. Toothache
- 2. Stomachache
- 3. Fever/flu
- 4. Headache.
- 5. Other diseases like diarrhea, respiratory problems, etc.

B. PERSONAL ATTITUDE

- 1. Not interested in studies.
- 2. Feel lazy.
- 3. Peer influence.
- 4. Lack of concentration.
- 5. Inability to wake up early.
- 6. No assignment
- 7. Prefers playing computer games

C. TEACHER-RELATED REASONS

- 1. Reprimanded by the teacher.
- 2. Inability to understand the teacher's lessons.
- 3. Dislikes the teacher.

D. CLASSROOM ATMOSPHERE

- 1. Classroom is hot and uncomfortable.
- 2. Noisy inside the classroom.
- 3. Bullied by classmates.
- 4. No friends in class.

E. HOME-RELATED FACTORS

- 1. Ask by parents to absent from class
- 2. Parents' quarrel.
- 3. Uncaring parents
- 4. Many household chores.
- 5. No money to buy snacks in school.
- 6. No food sustenance.

What strategies can be proposed to minimize, if not totally eradicate absenteeism among Grade Six pupils of Alapan 1 Elementary School?

Scope and limitation of the study

This study is limited to the causes of absenteeism among Grade Six pupils of Alapan I Elementary School from June 13, 2016 –March 2017. Fifty-four Grade Six pupils' absentees were made as respondents. They were asked to accomplish a questionnaire translated in Filipino for such purpose.

Methodology

This study used the descriptive survey method. A questionnaire was used to determine the causes of absenteeism among pupils where they rated each situation/ reason/cause presented.

All data gathered from the respondents were orga-

nized, tallied, tabulated and presented in a series of tables and graphs. Frequency counts, percentage weight values and weighted mean were used in the analysis and interpretation of data.

It is noted that the questionnaire given to the pupils were translated in their native tongue in order for them to understand better what they were answering, thus, giving more accurate responses.

The rounding off of figures was done to signify classification of responses. The measure of central tendency specifically the mean is being used to determine the average value of pupils' responses.

Graphs are made to interpret the data gathered in an easiest way.

Results and Analysis

Based on the study, personal attitude is the primary reason why pupils are absent from their classes. They do not wake up early so, they failed to go to school. Flu/fever is the second leading cause in Health factors category. Classroom atmosphere, teacher factor and home related reasons followed.

The top 10 reasons of absenteeism among the Grade Six pupils of Alapan I Elementary school are as follows:

1. Can't wake up early
2. Flu/fever
3. Reprimanded by teacher
4. Headache
5. Classroom atmosphere
6. Doing many household chores

7. Parents ask them to absent from class
8. House is far from school
9. Other diseases such toothache and diarrhea
10. Stomach ache

It has been found out from the previous research (http://owlcation.com/academia)that related result of causes were presented but different in categories. Based on their findings health is the primary reason why students are absent from their classes (Flu/fever), followed by personal attitude (can't wake up early), classroom atmosphere, headache, diarrhea, home-related reasons, toothache and bullied by classmates.

Actual Findings of Result and Analysis

A. PHYSICAL FACTORS

Among the items cited, the distance of their house to the school and the danger posed by walking to the school has an average mean of 3.20. This is the 8th reason of absences among pupil-absentees.

B. HEALTH

Fever/ flu is the most common reason of students for being absent. It has the 2nd highest response average of 7.20. It is followed by headache, with an average response of 3.40. Other diseases like diarrhea come in 9th with 3.00 average responses. The least common reason for them for being absent in class is toothache, with an average of 2.00 under this category.

C. PERSONAL ATTITUDE

That the pupils doesn't wake up early is the most common reason why he/she is absent. This account for 8.40 mean. Another reason commonly cited is that they can't concentrate on their studies because they failed to study their lessons and do their assignments. This resulted 1.00 average mean. Feeling lazy and playing computer games also keep them away from school. It has an average response of .60, the least among this category.

D. TEACHER-RELATED

When pupils are scolded by their teacher for their bad behavior inside their class, this is often to be the reason for their absences in class. It has the highest average response of 4.00 in this factor. This is the 3rd main reason why they absent in class.

E. CLASSROOM ATHMOSPHERE

The classroom situation got the highest average reason under this category why pupils are absent in class. It has an average response of 3.60 respectively.

Bullying from peers or fellow classmates is second with an average response of 2.20.

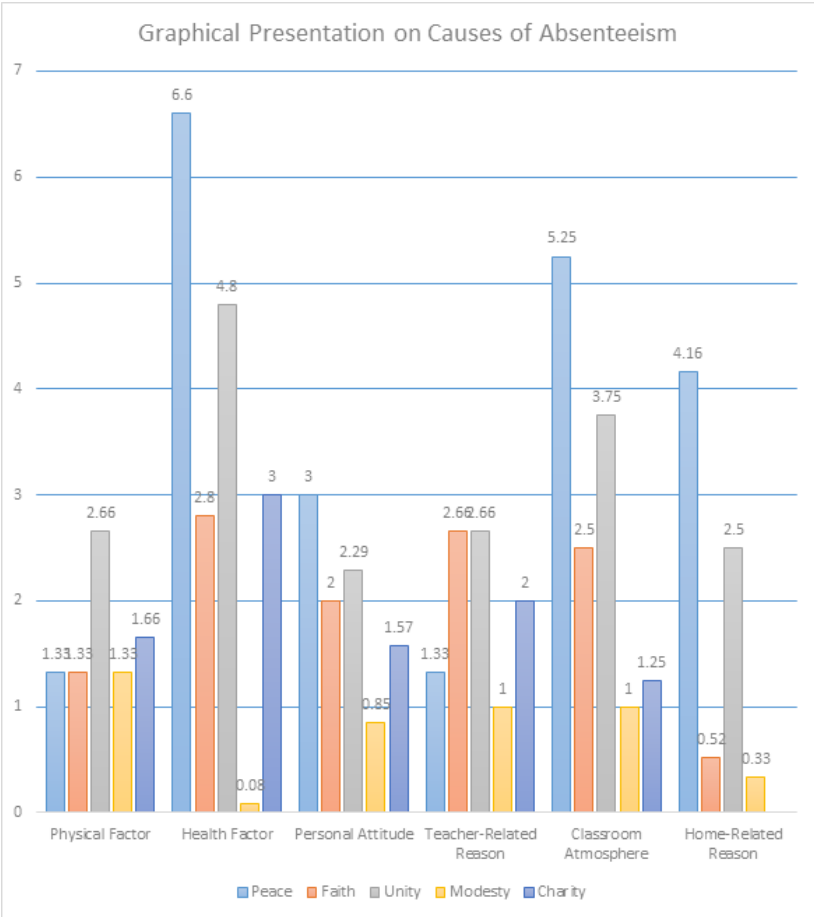
F. HOME-RELATED

Based on the pupils' response, some pupils are absent because they are told to absent to do errands and other household chores which has an average of 3.40 response. Aside from the fact that some pupils do not have money for their snacks, do not have food to eat before going to school and other related problems school expenditures. It has an average response of 1.40.

GRAPHICAL PRESENTATION OF THE DATA GATHERED

TABULAR PRESENTATION OF TOP 10 CAUSES OF ABSENTEEISM

Grade Six- Section	Peace	Faith	Unity	Modesty	Charity	Total	Total/5	
Number of Respondents	10	13	14	4	13	54	10.80	
Causes of Absenteeism of Pupils								
A. Physical Factors								
O 1. House is far from the school	2	2	4	3	5	16	3.20	8th
O 2. It is unsafe to go to school	2	1				3	0.60	
O 3. Nobody accompanies me in going to school since it is far		1	4	1		6	1.20	
B. HEALTH FACTORS						0	0.00	
O 1. Toothache	2	2	2		4	10	2.00	
O 2. Stomachache	2	3	4		3	12	2.40	10th
O 3. I'm suffering from fever/flu	9	8	10	4	5	36	7.20	2nd
O 4. I have a headache	11		3		3	17	3.40	4th
O 5. I have some other disease like diarrhea, respiratory problems, etc.	9	1	5			15	3.00	9th
C. PERSONAL ATTITUDE						0	0.00	
O 1. Not interested in studies.	1					1	0.20	
O 2. Feel lazy	2	1	1	3	1	8	1.60	
O 3. My. friends influence me to absent from my class	2	1	1	3		7	1.40	
O 4. I can't concentrate in my studies	4		1			5	1.00	
O 5. I did not wake up early.	9	11	12		10	42	8.40	1st
O 6. I did not study/make my assignment the night before	2					2	0.40	
O 7. I got fond of playing computer games	1	1	1			2	0.60	
D. TEACHER-RELATED REASONS						0	0.00	
O 1. My teacher scolded me.	3	5	5	3	4	20	4.00	3rd
O 2. I can't understand my teacher's lessins.	1	2	1		2	6	1.20	
O 3. I don't like my teacher		1	2			3	0.60	
E. CLASSROOM ATMOSPHERE						0	0.00	
O 1. Our classroom is hot and uncomfortable	7	4	5	2		18	3.60	5th
O 2. It's noisy inside our classroom	6	3	7		2	18	3.60	5th
O 3. A classmate/classmates bully	3	1	3	2	2	11	2.20	
O 4. I have no friends in our class	5	2			1	8	1.60	
F. HOME-RELATED FACTORS						0	0.00	
O 1. My parents ask me to be absent from class	5	6	5		1	17	3.40	7th
O 2. My parents quarreled.	4	2	1	1		8	1.60	
O 3. My parents don't care about my studies	2			1	1	4	0.80	
O 4. I do many household chores	7	3	6		3	19	3.80	6th
O 5. I don't have money to buy snacks in school	2	2	1			5	1.00	
O 6. We have no food at home/I did not eat	5	1	2		1	9	1.80	


Graphical Presentation on Causes of Absenteeism
7
6
5
4
3
2
1
0
6.6
5.25
4.8
4.16
3.75
3
3
2.8
2.66
2.66
2.66
2.5
2.5
2.29
2
2
1.66
1.57
1.33
1.33
1.33
1.33
1.25
1
1
0.85
0.52
0.33
0.08
Physical Factor
Health Factor
Personal Attitude
Teacher-Related Reason
Classroom Atmosphere
Home-Related Reason
Peace
Faith
Unity
Modesty
Charity

Conclusion and Recommendation

After having done all means to determine the causes of absenteeism of Grade Six pupils, it was good to realize that possible solution to address absenteeism could be materialized. "The question educators need to ask is not how motivated their pupils are, but how their pupils are motivated" (Kohn,1994,p3).

To address absenteeism among pupils the researcher recommended the following:

1. Call the attention of parents. During Parent-Teacher Conference (PTC), discuss the personal attitude of their children particularly waking up late in the morning. Emphasize to them that they need to supervise their children to sleep at least 8 hours or more to wake up early in the morning and make ready for school activities. Tackle the importance of going to school regularly which can help their children to obtain good grades and good study habits which can lead them for better future.

2. Since Health Factor is the second cause of absenteeism, educate the parents and pupils to practice good personal hygiene, eating balance meals as well as taking lots of water to prevent them from getting sick.

The school can also coordinate to the health center to address this health problem.

School-based feeding program should be strengthened. Deworming and hand washing could be intensified to address health problems.

3. Conduct home visitation because some of the parents concerned do not attend the Parent-Teacher Conference. This is the best way to determine the real problem of the

pupils why are always absent in class. The teacher can make an accurate intervention based on the data gathered from home visitations.

4. Teachers shall hold meeting about the 3rd cause of pupils' absenteeism. Some pupils were absent due to this reason, the teacher reprimanded/ scolded them. Self-control is a virtue which the teacher should practice in the course of her everyday teaching. The teacher should know and understand why certain pupils' are "pasaway". Home visitation is the best way to understand the pupil's situation why they did so.

5. Classroom environment should be conducive to learning. Teachers should coordinate to the Homeroom PTA and ask their support to provide good ventilation inside the classroom for the welfare of their children and for pupils' comfortable learning.

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TEACHERS' ATTITUDE TOWARDS ACTION RESEARCH: A FACTOR IN THE DEVELOPMENT OF TRAINING PROGRAM

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Abstract

A positive attitude towards action research is a key to success and progress in the knowledge based societies and national development. This study focused on teachers' attitudes towards action research. A non-experimental descriptive-quantitative method of research was utilized. The respondents consisted 98 teachers represented 100% of the teaching personnel of the school. Majority of the teacher-respondents are females, belonging to the 31-40 age group, married, baccalaureate degree graduates and with units earned in Master of Arts as the highest educational qualifications and have been teaching for 11 to 20 years in service. Teachers recognized the importance of research in achieving vision-mission of the school/department of education. They also agreed that research findings in classroom discussion enhances teaching effectiveness and broaden one's academic horizons. Teachers signified their least agreement on items which stated that they can easily squeeze time into their busy schedules to de research work, they have contact with colleagues with whom they could talk about action research, and that library services are easily accessible. The respondents' overall mean is 3.19 that indicate they generally agree to the statements associated to attitudes towards research.

In other words, they have positive attitudes towards action research and with most agreement on statements related to awareness of action research and least agreement on resource utilization and availability. Based on the findings, given enough encouragement and guidance by a research mentor to work collaboratively on how to undertake action research and time to do action research are highly suggested.

Keywords: *Attitude, action research, training program*

Introduction

The desire of teachers to use approaches that 'fit' their particular students is not dissimilar to a doctor's concern that the specific medicine being prescribed be the correct one for the individual patient. The ability of the action research process to satisfy an educator's need for 'fit' may be its most powerful attribute." –Richard Sagor

Research is increasingly being recognized as an integral part of any effective scientifically based programs whether it be in educational administration, man power development or the social sciences (Andres, 1998).

The Department of Education (DepEd) adopts the enclosed Basic Education Research Agenda which provides guidance to DepEd and its stakeholders in the conduct of education research and in the utilization of research results to inform the Department's planning, policy, and program development aligned with its vision, mission, and core values.

The Department of Education encourages school teachers to conduct research studies to better understand and advance basic education in the country with its research agenda revolves around four main themes, namely: teaching and learning, child protection, human resource development, and governance (DepEd Order No. 43, s. 2015).

Any school that strives for excellence must develop not only the instructional capacities of its faculty, but also their research skills. Good instruction is not only based on method and delivery. It must also be based on solid research (Pueyo, 2014).

In schools, problems do exist and to gain a better un-

derstanding of these problems educational researches are conducted. It is in research that systematic application of various methods is employed to provide trustworthy information about problems (Gay & Airasian, 2000). If schools want to improve the quality of instructions and their other services, they have to undertake researches.

Bukandala Elementary School like other school is expected to perform the function of research besides instruction and community extension. However, the school has paucity of action research outputs. Palispis (2006) wrote a small number of faculties are actually involved in research activities. Even among institutions with accredited programs, only few undertake actual research. Research is essential for the development of the school, of the teachers themselves and of the society in general. With the lukewarm response of the teachers at the school in involving themselves in research endeavors, the researcher was prompted to investigate the demographic profile and the attitudes of the teachers towards action research as part of its research development program to promote the research culture in the school.

The aim of this action research is to describe the attitudes of teachers towards research. The results of this survey were utilized by the school to organize teacher-researchers cluster based on their self-assessment of their knowledge of research, and their attitudes towards research with the hope that this will be a starting point in developing the training program and research culture of the school.

Statement of the Problem

This study Teachers' Attitudes towards Action Research: A Factor in the Development of Training Program in Bukandala Elementary School aims to conduct a description of the attitudes of teachers towards action research and the findings will be the development of the training program.

Specifically, the purpose of the study is to answer the following:

1. What is the profile of teachers relative to their:
    a. gender
    b. age
    c. civil status
    d. educational attainment
    e. years of teaching
    f. training and exposure to research
    g. knowledge of research, and
    h. baccalaureate with research paper or without research paper?
2. What is the attitude of the teachers towards action research in terms of their:
    a. perceptions of action research
    b. feelings of action research
    c. action research awareness
    d. action research interest
    e. action research engagement benefits and payoffs; and
    f. resource utilization and availability

Brief Review of Literature

It is stated in the R.A. 9155 (Governance of Basic Education, 2001) Chapter 1, Section 7 (5) "Department of Education is mandated to undertake national educational research and studies." Likewise, DepEd Order 65, series 2003 which is the Institutionalizing Research Based Decision, Policy-Making in the Department in the Creation of the Research, Innovation and Policy Evaluation Secretariat (RIPES).

Seider & Lemma, 2014 found out that teachers sustained the 'inquiry mindset' gained while learning the processes associated with conducting action research and continued using aspects of the process; however, conducting new projects was less likely. Teachers' sense of professional efficacy was enhanced, even after many years had intervened. Action research had immediate benefits for students but long-range benefits were not determined. Though challenging, teachers perceived conducting action research was professionally valuable. Teachers reported that administrators, although supportive, played passive roles, whereas colleagues were more collaborative during planning and implementing their projects. Teachers described school environments conducive to conducting action research as ones that provide structures for teams to work on mutual goals supported by strong administrative leadership.

Educational Action Research involves teachers making and creating educationally worthwhile changes in their classrooms and other learning environments. If teachers believe that they are mere functionaries in the educa-

tional system and have little control over what students learn and how they learn it, they will see themselves as technicians implementing a learning system prescribed by external authority. In order to do action research, teachers must be open to the possibility that there is space in their practical situation for them to make and create educationally worthwhile change. Discerning where these spaces are - these opportunities for action in a practical situation – is an important part of the action research process. Making and creating educational change involves teachers in developing their situational understanding. In the process their taken-for-granted practical knowledge is frequently challenged (Emeritus, 2012).

Exploring attitudes of prospective teachers towards various aspects (Ozel, 2007; Aslan & Guneyli, 2009; Uyangor & Karaca ECE, 2010; Kutluca, 2011; Zientek, Carter, Tylor & Capraro, N.D; Dutton, 1951) of teaching and learning is not a new phenomenon. The relationship of teacher's attitude with student's attitude and performance has also been the subject of many studies (Indoshi, Wagah & Agak, 2010). The findings of different studies draw attention to the significance of measuring the attitudes of the teachers (Okpala, 1985; Onacha, 1985; Chako, 1981; Odubunmi, 1986; YARA, 2009). However, there is a scarcity of investigations into prospective teachers' attitudes towards research at the international level and especially in Philippines. Hence it is important to investigate the attitude of prospective teachers towards research in order to add to the existing set of knowledge.

Research in the classroom can be a professional experience of great importance and have a significant

effect on teaching and learning and this form of learning offered a different kind of professional development (Zamorski & Bulmer, 2002).

As teachers engage in action research, they are increasing their understanding of the schooling process. What they are learning will have great impact on what happens in the classrooms, schools, and districts in the future (Johnson, 1989). They gain a new sense of confidence from conducting researches, beginning to see themselves as learners and developing closer relationship with their students and colleagues (Zeichnez, 2007). Knowing also that their researches are of interest to other schools, teachers gained in skills and confidence as a result of their involvement (Sharp, 2005).

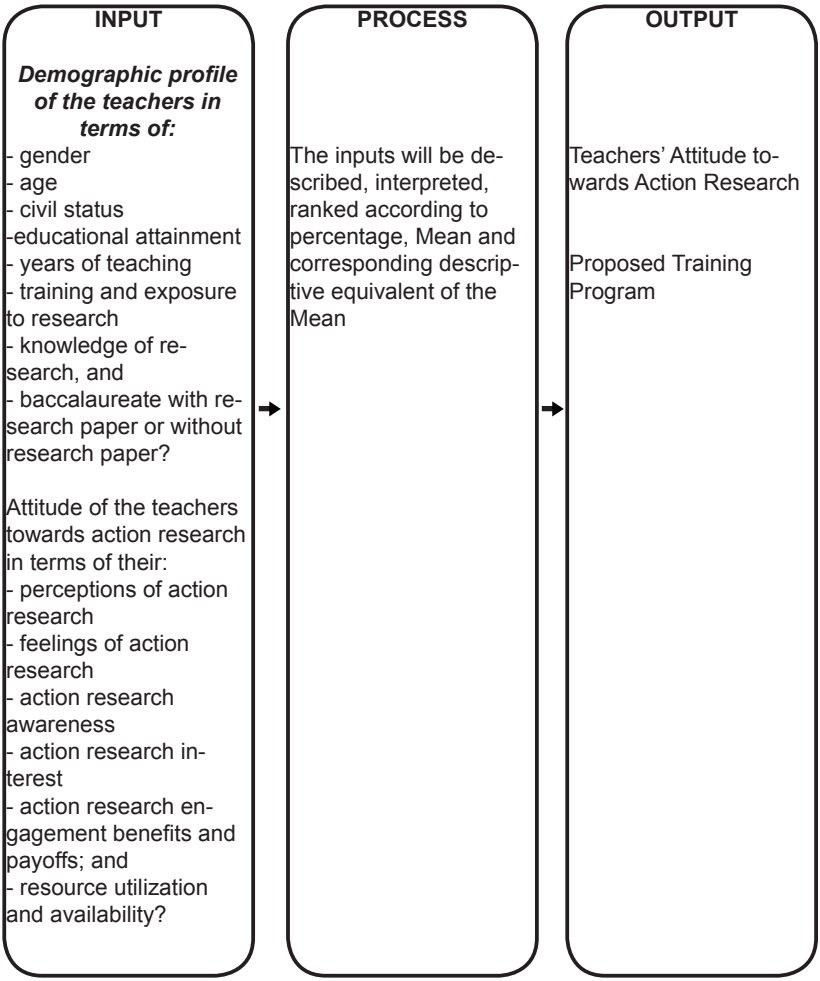
The vast majority of teachers who did become involved in classroom and cross school research in 1999 had positive attitudes to their involvement. Personal relationship and "goodwill" between the various participants was an important factor in moving the project forward. Teachers found the activities they were involved with interesting, enjoyable and fulfilling. Time pressure and teachers workloads emerged as the most commonly cited factor in non-engagement, or limited progress in research (Burns, 2000). Added to these constraints is the current relationship between education and research and the application of knowledge in the field that is almost non-existent (Taylor, 1999).

Dinoso (2003) disclosed that the faculty members rated themselves interested to most interested in conducting research work. The leadership behavior of their administrator with respect to their desire to do research was

found to be influential. The teachers considered commitment as the most needed characteristic in doing research in addition to patience and perseverance. They agreed that conducting research will improve their professional practice and a way of reaching their goals such as developing reaching effectiveness and fresher attitudes towards research. They also considered incentives in monetary form and points in rank as other motivating factors in doing research. However, their current incentive scheme in doing research was rated least satisfactory. They strongly agreed that some hindrances to teachers' interest in conducting research were subject overloads, schedule of classes and lack of training in basic research skills.

Conceptual Framework

The paradigm below shows the variables considered for the study. The profile of the teachers according to their gender, age, civil status, educational attainment, years of teaching, training and exposure to research, knowledge of research, and baccalaureate with research paper or without research paper and the attitudes of teachers in terms of their perceptions of action research, feelings on action research, action research awareness, action research interest, action research engagement benefits and payoffs, and resource utilization and availability. The teachers' attitudes towards action research results drawn therein served as factor in the development of training program.


INPUT
Demographic profile of the teachers in terms of:
- gender
- age
- civil status
-educational attainment
- years of teaching
- training and exposure to research
- knowledge of research, and
- baccalaureate with research paper or without research paper?
Attitude of the teachers towards action research in terms of their:
- perceptions of action research
- feelings of action research
- action research awareness
- action research interest
- action research engagement benefits and payoffs; and
- resource utilization and availability?
PROCESS
The inputs will be described, interpreted, ranked according to percentage, Mean and corresponding descriptive equivalent of the Mean
OUTPUT
Teachers' Attitude towards Action Research
Proposed Training Program

Methodology and Research Design

This part is a detailed presentation of the methods and procedures employed in the conduct of this study. Included in this the particular portion are the following: respondents of the study, the research instrument, data collection procedure, data gathering and analysis, and the statistical treatment of data.

Research Design

This study utilized a non-experimental descriptive-quantitative method of research to describe the profile and attitudes of teachers towards action research. Descriptive research is “aimed at casting light on current issues or problems through a process of data collection that enables them to describe the situation more completely than was possible without employing this method. Quantitative research focuses on gathering numerical data and generalizing it across groups of people or to explain a particular phenomenon.

Survey type of research was employed where respondents answer questions administered through interviews or questionnaires. After participants answer the questions, researcher describes the responses given. In order for the survey to be both reliable and valid it is important that the questions are constructed properly.

Respondents of the Study

Ninety-eight (98) Bukandala ES teachers answered the survey questionnaire. These 98 teachers of the school represented 100% of the teaching personnel.

Research Instrument

To gather pertinent data and information needed in the study, a 2-part questionnaire was employed by the researcher. It was structured in a form of checklist type to promote convenience in answering. Part I includes statements pertaining to the demographic profile of the respondents in terms of gender, age, civil status, educational attainment, years of teaching, training and exposure to research, knowledge of research, and baccalaureate with research paper or without research paper. Part II is composed of 20 item checklist for teachers about attitudes towards research in terms of their perceptions of action research, feelings on action research, action research awareness, action research interest, action research engagement benefits and payoffs; and resource utilization and availability. The instrument used by De Guzman, Olalia, Ong, Ordana, Pacheco & Pelino (2006) in an allied study was adopted but some statements in the instrument were modified to suit the orientation or concerns of teachers. Two statements included under Perceptions of Research were taken from Welker and Cox (2006) particularly those directed to the importance of research in achieving the vision-mission of the school/department for development.

The 20 statements are categorized into six areas as follows:

A 4-point Likert scale was used wherein 4 – Strongly Agree, 3 – Agree, 2 – Disagree, and 1 – Strongly Disagree. The statements were stated positively with score four (4) indicating the strongest agreement. In this manner, high scores would relate to positive attitude towards

research.

Data Gathering Procedure

Statements	Areas of Concern
1 – 5	Perception towards action research
6 – 8	Feelings towards action research
9 – 10	Awareness of teachers to action research
11 – 14	Interest of teachers in action research
15 – 17	Benefits and payoffs received from action research involvement
18 - 20	Resource utilization and availability

Data gathering had pursued by the researcher through the following phases:

Phase I – Socio Preparation:

Prior to the data gathering, the researcher wrote a letter address to the School Head asking permission to conduct the data gathering to their teachers and administrator. Objectives of the study were discussed and consent was obtained prior to actual data gathering.

Phase II – Data Gathering

Upon approval, the researcher proceeds to data gathering. The researcher explained the directions on perceiving the statements included in the tool to the respondents during the School Learning Action Cell (SLAC). They were retrieved immediately after the respondents had been through answering them. Then the collected data were subjected to statistical treatment.

Data Analysis and Statistical Treatment

Upon retrieval of the questionnaires, the responses

were tallied, tabulated and computed by the researcher. The researcher employed frequency count, percentage and mean to answer the problems or objectives of this study. In presenting the results of the teachers' attitudes towards action research, the statements were ranked according to the mean obtained by each individual statement. They were presented in two tables though in all statements the respondents have expressed agreement. The first 10 statements were included in one table and the second ten statements in another table.

Ethical Considerations

The respondents were informed of the purpose of the survey and they were highly encouraged to participate in answering the questionnaire. They were requested to write their names on the questionnaires because this will be necessary in clustering them into small research group later. Nevertheless, they were assured of the confidentiality of their individual responses.

Results and Discussion

This portion shows the presentation, analysis and interpretation of the findings based on the statement of the problem. The main concern of this research is to determine the teachers' attitudes towards action research as the basis for a training program of the school

.

Demographic Profile of Respondents

The characteristics or demographic profile of the teacher-respondents are presented in Table 1.

Table 1
Demographic Profile of the Teachers (n = 98)

Profile	f	%
1. Gender		
Male	10	10.20%
Female	88	89.80
2. Age		
21 – 30	21	21.43%
31 – 40	45	45.92%
41 – 50	28	28.57%
51 – 60	4	4.08%
60 & above		
3. Civil Status		
Single	29	29.59%
Married	69	70.41%
4. Highest Educational Qualification		
Baccalaureate	47	47.96%
Bacc. + MA units	48	48.98%
MA	0	0%
MA + Doc. Units	3	3.06%
Doctorate	0	0%
5. Years in Teaching		
0 – 10	62	63.27%
11-20	26	26.53%
21 & above	10	10.20%

Profile	f	%
6. Training and Exposure to Research		
Academic Professional	16	16.33%
Have done my own research	3	3.06%
Seminars and Workshops	78	79.59%
(No Answer)	1	1.02%
7. Knowledge of Research		
Excellent	0	0%
Very Good	15	15.31%
Good	62	63.27%
Fair	17	17.34%
(No Answer)	4	4.08%
8. Baccalaureate		
With research paper	60	61.22%
Without research paper	25	25.51%
(No answer)	13	13.27%

As Table 1 shows, the majority of the teacher-respondents are females, 88 (89.80%) over the male teachers, 10 (10.20%). As to their age, 45 (45.92%) belong to 31 – 40 age group. Sixty-nine (70.41%) of the teachers are married. Forty-eight (48.98%) of the respondents are graduates of baccalaureate degrees with units in Master of Arts as their highest educational qualification. Most of the teachers, 62 (63.27%) have been teaching for 0- 10 years. Training and exposure to research by most teachers, 78 (79.59%) had been acquired during seminars and workshops. Knowledge of research was answered on the teachers' perception on how well they knew research and

its process. In their self-assessment 62 (63.27%) of them rated themselves to be good.

Teachers' Attitude towards Action Research

Table 2 portrays the items by area that received the most agreement from the respondents. The statements under each area that belonged to the first ten when they were ranked according to their obtained means are included in this table.

Items	Mean
Perceptions	
I think action research is important in achieving the vision-mission of the school/department of education	3.50
I think action research broaden one's academic horizons	3.43
I think that including relevant action research findings in classroom discussion enhances teaching effectiveness	3.49
I know and accept the action research in the development of teaching-learning process, governance, child protection and human resources.	3.40
Awareness	3.40
Action research is the way forward to change some teaching practices.	
Interests	3.37
I am interested in updating and improving myself with action research findings	3.40
I am interested in learning more about research	3.26
I am interested in applying action research findings into practice	
Benefits and Payoffs	3.30
Action research findings that are advantageous to good learning can be implemented in my work environment	3.30
I believe action research promises to achieve a more effective teaching and learning experiences	

Table 2
Teachers' Attitude towards Action Research with which they agreed Most

Referring to Table 2, of the first half or top 10 statements in which teachers expressed their strong agreement are on the area, perceptions of research. Specifically, these items that stated that research is important in achieving the vision-mission of the school/Department of Education (3.50), that research findings in classroom discussion enhances teaching effectiveness (3.49), and that including that research broadens one's academic horizons (3.43).

These results only show that teachers recognize the importance of research in achieving vision-mission of the school/department of education. This is supported by their cognition that research can enrich their knowledge and thereby broaden their academic experiences. They also agreed that research can change some teaching practices, important in the development of teaching-learning process, governance, child protection and human resources, and can make them more effective in teaching as they understand better their learners if classroom based researches are conducted. This last finding conforms with the findings of Zeichner, 2007; Johnson, 1993; Zamorski & Bulmer, 2002, Dinoso, 2003, Arzagon, 2007 in their related studies. This is also supported by the findings of Cordingley (2003) that teachers were attracted to research that are relevant and enabled them to do their tasks more effectively and/or more efficiently.

Table 3 shows the items by area that received the least agreement from the respondents. The statements under each area that belonged to the second half when they were ranked according to their obtained means are included in this table.

Table 3

Teacher' Attitudes towards Action Research with which they agreed Least

Items	Mean
Perceptions	
I think action research is more rewarding than teaching	2.60
Feelings towards action research	
I feel that action research brings fulfilment to my profession	3.20
I feel that action research brings rewarding activities	3.10
I am willing to devote my leisure time to conduct action research	3.30
Awareness	
Conducting action research is an integral part of IPCRF	3.25
Interests	
I am interested in conducting action research	3.10
Benefits and Payoffs	
Acton research is conducted because it allows teachers to be promoted and outstanding	3.25
Resource utilization and availability	
Library services are easily accessible	2.99
I have contact with colleagues with whom I could talk about action research	2.90
I can easily squeeze time into my busy schedule to do research work.	2.80

Legend:
4:00 – 3.50 Strongly Agree (SA)
3.49 – 2.50 Agree (A)
2.49 – 1.50 Disagree (D)
1.49 – 1:00

With reference to Table 3, on the second half or second ten of the statements, the teachers signified their least agreement on items which stated that they can easily squeeze time into their busy schedules to do research work (2.80), that they have contact with colleagues with whom they could talk about action research, and that library services are easily accessible.

The result on the time to do research work is consonance with the findings of Burns (n.d), Dinoso (2003), and Arzagon (2007) which disclosed that time pressure and workloads, and schedule of classes emerged as the most commonly cited factor in non-engagement or slow progress in research.

The respondents are teachers and must have developed great love for research and recognize that doing research is important to make them more creative teachers/ they expressed least agreement in the item that stated that library services are easily accessible and that research is more rewarding than teaching. This is supported by the finding of De Guzman, Olalia, Ong et.al (2006) in their study about attitudes of Nursing faculty towards research where the respondents expressed disagreement to this statement.

The item on having a contact with colleagues with whom they can talk about action research can be accounted to the fact that almost everybody in the school

and Schools Division Office seems to be busy in classroom, co-curricular activities and projects and programs. Probably, the teachers like to have action research mentors aside from the research and development team whom they can approach anytime they decide to get involved in research activities.

Table 4 presents the overall mean of the attitudes of the teacher-respondents towards action research. The mean scores indicate the level of agreement: the higher the score the more the respondents agreed with the statement; the lower the scores, the more they disagreed with the statement.

Table 4

Overall Computed Means of Teachers' Attitude towards Action Research

Items	Mean	Description
1. Perceptions on action research	3.20	Agree
2. Feelings towards action research	3.10	Agree
3. Awareness to action research	3.40	Agree
4. Interests	3.25	Agree
5. Benefits and Payoffs	3.28	Agree
6. Resource utilization and availability	2.90	Agree
Average	3.19	Agree

The respondents' overall mean is 3.19 that indicate they generally agreed to the statements associated to attitudes towards research. In other words, they have positive attitudes towards research and with most agreement on statements related to awareness of action research and least agreement on resource utilization and availability.

With this positive attitudes of teachers towards re-

search, given enough encouragement and guidance by a research mentor and time to do research. In the study conducted by Sharp, Sanders, Eames & Tomlinson (2006) teachers as researchers support the school by improving practice and outcomes for pupils, becoming more adept at using evidence for school improvement, and engaging in reflection and inquiry as part of professional development.

Conclusion

This descriptive-quantitative study was limited to the teachers of Bukandala Elementary School.

The main objective of the study was to find out the teachers' attitudes towards action research. Specifically, it had also described the characteristics of the respondents. It was found out that majority of the teacher-respondents are females, belonging to the 31 – 40 age group, married, baccalaureate degree graduates and with units earned in Master of Arts as the highest educational qualifications and have been teaching for 11 to 20 years in service. Most of them got their knowledge to research through training and workshop and assessed their knowledge of research as good, and had done research papers during their baccalaureate years. Furthermore, it was found out that the teachers of the school have generally positive attitudes towards action research. They agreed most on statements directed to awareness to action research and least agreed on resource utilization and availability.

Research is a difficult task and requires special skills but these skills can be taught and learned provided one has the aptitude and interest. Conducting action research is a result of motivation and commitment (Catane,

2006). As such, knowing the positive attitudes of teachers towards research is an inspiration because this can be a factor or potent force in developing the research culture and training program in the school. The self-assessment of teachers of the knowledge as good and their educational qualification, their being young in age and in the teaching profession can be the factors that can hasten its development.

There is a felt need to investigate on the relationship of the teachers' attitudes towards research and their demographic profile, find out their needs to enable them to conduct classroom based researches, and to ascertain what can administrators do on the workloads or schedules of classes or activities to give teachers ample time to do research work.

Recommendation

1. The members of the education community. Further studies should be made to make all the members of the education community to be more aware and dynamically involved in conducting action research. Considering the results of the study, a more extensive and intensive survey and testing must be made in order to effectively determine the teachers' attitudes towards action research and made some training programs or interventions.

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Survey Questionnaire

Name: _____
Respondent's Designation: _____

PART I. DEMOGRAPHIC DATA
Directions: Please put a check (/) mark on the appropriate space ( ) provided that corresponds to your profile.

1.1 Gender
( ) Male ( ) Female

1.2 Age
( ) 60 years old and above
( ) 31 – 40 years old
( ) 51 – 60 years old
( ) 21 – 30 years old
( ) 41 – 50 years old
( ) 20 years old and below

1.3 Civil Status
( ) Single ( ) Married

1.4 Highest Educational Qualification
( ) Doctorate
( ) Baccalaureate + MA units
( ) MA + Doc. Units
( ) Baccalaureate
( ) Master of Arts

1.5 Years of Teaching

( ) 31 years and above
( ) 11 – 20 years
( ) 21 – 30 years
( ) 0 – 10 years

1.6 Training and Exposure to Research

( ) Academic years
( ) Seminar-Workshops
( ) Have done my own research

1.7 Knowledge of Research

( ) Excellent
( ) Good
( ) Very Good
( ) Fair

1.8 Baccalaureate

( ) with research paper
( ) without research paper

PART II. TEACHERS' ATTITUDES TOWARDS ACTION RESEARCH

Directions: Please rate each statement to determine the degree on attitude towards action research using the scale below. Please encircle the number on the space provided.

Scale	Description
4	Strongly Agree
3	Agree
2	Disagree
1	Strongly Disagree

Perceptions				
1. I think action research is important in achieving the vision-mission of the school/department.	4	3	2	1
2. I think action research broadens one's academic horizons.	4	3	2	1
3. I think that including relevant action research findings in classroom discussion enhances teaching effectiveness.	4	3	2	1
4. I think action research is more rewarding than teaching.	4	3	2	1
5. I know and accept the action research in the development of teaching-learning process, governance, child protection and human resources.	4	3	2	1
Feelings Towards Research				
1. I feel that action research brings fulfilment to my profes-sion.	4	3	2	1
2. I feel that action research brings rewarding activities	4	3	2	1
3. I am willing to devote my leisure time to conduct action research	4	3	2	1

Awareness				
1. Action research is the way forward to change some teaching practices.	4	3	2	1
2. Conducting action research is an integral part of IPCRF.	4	3	2	1
Interests				
1. I am interested in updating and improving myself with ac-tion research findings.	4	3	2	1
2. I am interested in learning more about action research.	4	3	2	1
3. I am interested in applying action research findings into practice.	4	3	2	1
4. I am interested in conducting action research.	4	3	2	1
Benefits and Payoffs				
1. Action research is conducted because it allows teachers to be promoted and outstanding.	4	3	2	1
2. Action research findings that are advantageous to good learning can be implemented in my work environment	4	3	2	1
3. I believe action research promises to achieve a more effective teaching and learning experiences.	4	3	2	1
Resource Utilization and Availability	4	3	2	1
1. Library services are easily accessible.	4	3	2	1
2. I have contact with colleagues with whom I could talk about action research.	4	3	2	1
3. I can easily squeeze time into my busy schedule to do re-search work.	4	3	2	1

MOTIVATIONAL FACTORS OF TENURED TEACHERS AND SCHOOL HEADS OF DEPARTMENT OF EDUCATION (DEPED) SCHOOLS DIVISION OF IMUS CITY, CAVITE, PHILIPPINES TO CONDUCT ACADEMIC RESEARCH

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Abstract

The study determined the relationship between the socio-demographic characteristics of the respondents and their motivational factors in conducting academic research.

It utilized the descriptive design where 641 respondents from SDO Imus City took part on the online survey.

Results showed that majority are female, 36 years old and above, has approximate monthly income between Php 15,000-20,000 and rank between Teacher I-III. There were only 38 research studies conducted and 10 are still on-going. Of the two hours allotted for ancillary works, majority do not allot work hours for research.

Data revealed that top three motivational factors are respect from students (intrinsic), salary increase (extrinsic) and satisfaction of personal needs (intrinsic). Age, sex and academic rank are not significant while approximate monthly income has a significant difference among respondents with their motivation to conduct academic research.

This study is limited only to tenured teachers and school heads of Schools Division of Imus City.

Results of this **heuristic research** will serve as baseline data for DepEd to plan the support that can be extend-

ed to them and design rewards system that will encourage tenured teachers and school heads to produce more researches.

Keywords: Motivation, Productivity, Research, Teacher.

Type of Research: Descriptive Research

Introduction

Teachers are the most important resource in every school. Through their individualized professional competence, they provide valued learning to students and work related services.

Both elementary and secondary teachers and school heads have trifocal function and they are required to become teachers, researchers and service/extension oriented professionals.

Teaching function has been allotted six hours per day (R.A. 4670, Section 13 and DO 21, s. 2006) in an eight-hour duty while other duties only constitute two hours. These remaining two hours are allotted for learning materials construction and preparation of lesson plans and other extension works.

The conduct of quality research although a function that will not only help teachers to make a valuable contribution to the body of knowledge but will also serve as one of the criteria for tenure and promotion has been neglected by teachers. A study by Sanyal and Varghese (2006) as cited in Dayagbil (2015) entitled “Research Engagement

of Teacher Educator" states that "teachers have retained strong teaching functions and weak research functions".

One of the well-established research productivity theories that will support the current research is the life-cycle theory. Life cycle theory suggests that "in general, the research productivity of a researcher rises sharply in the initial states of a career, peaks at the time of the tenure review, and then begins a decline" (Diamond, 1986; Goodwin and Sauer, 1995; Hu and Gill 2000 as cited in the works of Chen et al 2010).

In a study conducted by Chen, et al. (2010) entitled Research Productivity of Accounting Teachers: An Exploratory, it was revealed that "drivers of the conduct of the academic research can be extrinsic and intrinsic" but still teachers and school heads tend not to produce research especially if there is security of tenure and they have reached a good promotion.

In the light of this reality, the Department of Education (DepEd) has been zealously pushing for a stronger orientation among DepEd schools. To further promote and encourage research in the Schools Division of Imus, DepEd Order 43 series of 2015, the "guidelines for the Basic Education Research Fund" (BERF) was revised and implemented to promote the culture of research and encourage eligible teachers and school heads to conduct BER and utilize the BERF. More so, if a teacher and school head are already tenured, they do not have a reason not to conduct and even publish an academic research since financial support from DepEd is available.

Tenure is the highest impacted outcome from research output as stated by Chen et al, 2010 in a study entitled

"Research Productivity of Accounting Teachers: An Exploratory Study". Because teachers are expected to be the primary producers of research in school, it will be useful to study the motivational factors of tenured teachers and school heads in conducting academic research. The results of this heuristic research will serve as a baseline data for DepEd to plan support that can be extended to them and design rewards system that will encourage tenured teachers and school heads to produce more researches.

Review of Literature

This part discusses the review of related literature from books, journals, thesis and websites to support the study about the motivational factors of tenured elementary and secondary teachers and school heads of DepEd Imus in conducting academic research.

Socio demographic characteristics of tenured teachers and school heads Age and Sex

Catadman (2014) in her study entitled "Personal and social adjustments of public secondary school teachers and their performance: basis for a personality development program" revealed that mean age of public secondary school teachers in North Cavite is 32.49 and majority of the teachers in secondary public schools are female.

Usop, et al (2013) found out that the mean age of teachers in the Division of Cotabato City is 38.83 years. The findings show that majority of teachers is in the age bracket of 31-40 years old and few belong to the age bracket of 50 and above. The data show that teachers are

generally in the middle age.

Furthermore, Mumtaz (2011) views age as something relative. An old employee has gained experience and brings with her/him positive qualities at work as cited in the work of Barcelona (2013) entitled “Effectiveness of technology and livelihood education (TLE-Culinary Arts) implementation in selected schools in Cavite” which says that there is no observable relationship occurs between age and job experience.

Although in terms of research productivity, age is a key factor, with the idea that when faculty members or teachers aged research productivity decreases (Galenson and Weinberg, 2000; Jones and Weinberg, 2011; Jones, 2010; Jones and Weinberg, 2011; Oster and Hamemesh, 1998 and Strobe, 2010 as cited in Stonebreaker, 2015).

Organization for Economic Co-operation and Development (OECD) Teaching and Learning International Survey (TALIS) in 2009 study found out that more than half of teachers across TALIS countries are aged from 30 to 50 years old. Given concerns about an ageing teacher population it is significant that, on the average, only 15% of teachers are less than 30 years of age and few teachers were under 25 years of age, perhaps owing to the education and qualification requirements that apply in most countries. That over one-quarter of teachers are over 50 years old is evidence of an ageing teacher population. Four years after, TALIS 2013 Survey reports that average age of teachers grew older where it is pegged at 43 years old, ranging from 36 in Singapore and as high as 49 in Italy (Burns and Darling- Hammond, 2014).

In United States the average age of teachers in tradi-

tional public schools is 43 years old (NCES, 2011). Likewise, White and Tyler (2014) produced an almost the same demographics based on their nationwide survey for High School Teacher in Physics, it shown that the average age of 27,000 teachers in 2013 is 46. The results of the following studies are not too far from the findings of a 12-year period data report in New York City conducted by Independent Budget Office (IBO) which shows that from 2000-2001 median age of teachers is 44 years old and median age of 40 in 2011-2012 (Roy, 2014).

In terms of sex, there were 91 percent female and 6.5 percent male teachers. It appears that female dominate the teaching profession (Usop, et al 2013).

Roy (2014) noted the increased percentage of female teachers in the 12-year period data of IBO from 73% in 2010-2011 to 76% female teachers in 2011-2012.

The Organization for Economic Co-operation and Development (OECD) Teaching and Learning International Survey (TALIS) (2009) came up with the same result that on average across TALIS countries, almost 70% of teachers were female, and in every TALIS country the majorities were female. Female dominated particularly in Bulgaria, Estonia, Lithuania, the Slovak Republic and Slovenia, with between 80 - 85% of the teacher workforce.

Approximate Monthly Income

One major contributing factor that emerged when discussing workers drive to commit to job is the salary and the time the payment is received (Wodon, 2014; Alansari, H. A, 2011).

Virola (2007) stated that Philippine teachers are grossly underpaid as reflected in the World Education Indicators (WEI) Programme data where it shows that the numbers of service or the lack of it has no impact in pay scale.

In Kenya, a realistic and attractive professional compensation package plays a vital role to keep teachers motivated and keep from other income-generating activities (Nzulwa 2014).

Academic Position/ Designation

In a study by Barcelona (2013), majority worked as Teacher I and the remaining as Teacher II. According to Delson (2009) as cited in Barcelona (2013), work experience influences the performance of the employees.

Factors Influencing Research Productivity

Some scholars believe that promotion has a motivating effect on research productivity. For instance, Smart (1999) states that if the sources of faculty motivation can be identified and later on manipulated then it can be assumed that faculty can also be motivated to behave in certain kind of ways. Other researchers, however, insist that teachers publish not for external rewards but because they enjoy the process of inquiry (McKeachie 1979 as cited in Chen, et al 2010). Prior studies identified two categories of personal motivational factors that drive academic research:

(1) investment factors or extrinsic rewards (e.g., salary raises, tenure, and promotion) and (2) consumption factors or intrinsic rewards (e.g., an individual's personal satisfaction from solving research puzzles, contributing to the discipline, and achieving peer recognition).

In addition to personal motivation, other factors also have a substantial influence on faculty members' research productivity. One well-established research productivity theory, Life-Cycle theory, suggests that in general the research productivity of a researcher rises sharply in the initial stages of a career, peaks at the time of tenure review, and then begins a decline (Diamond 1986; Goodwin and Sauer 1995; Hu and Gill 2000 as cited in the work of Chen, et al 2010). Other studies have identified that the following factors influence research productivity: (1) tenure status, (2) the allocation of working time to research activities, (3) length of the tenure probationary period, (4) teaching loads, and (5) financial research support (Buchheit et al. 2001; Cargile and Bublitz 1986; Chow and Harrison 1998; Tien 2000; Levitan and Ray 1992; Hancock et al 1992 as cited in the work of Chen, et al 2010).

Differences in Research Productivity

Many studies have been made to examine differences between male and female productivity. Typically in male-dominated blue-collar industries, productivity differences between sexes were very small about 1 – 3% depending on the country (Petersen, Snartland and Milgrom 2005).Correspondingly, Ester Boserup (1970 as cited in Wamboye, 2015) explained this narrowing of gap in productivity between male and female in manufacturing in-

dustry as part of the industrialization as household works became commercialize and women gained greater access to education it eventually created more opportunity for employment and tapers male-female productivity gap.

The same thing was observed in other areas as well, while the female sex winds down productivity gap in manufacturing industry, female-male gap is slowly diminishing in academe. In terms of cognitive abilities male and female differences have been addressed by numerous meta-analysis studies of Verbal (Hyde & Linn, 1988), Spatial (Linne & Peterson, 1985; Voyer et al, 1995) and Mathematical Abilities (Hyde et al, 1990) as cited in APA, 2014 paper "Think again: men and women share the cognitive skills". Though results of these studies were minimal and almost non-existent in areas with strong gender equality program these perceived or actual differences in cognitive performance between males and female are most likely the result of social and cultural factors (APA, 2014).

However, this is not the scenario in area of research. There exists a research productivity gap between male and female. Cole and Zuckerman (1984) do not believed that family obligations affect women's research, nor blatant sexual discrimination can fully account the less productivity of female researchers, thus they coined the phenomena as "research puzzle".

These contradictory and seemingly conflicting results on gender productivity, specifically in producing research studies, prompt Leahey (2006) to have a closer look on gender gap and found out that specialization in a program plays a big factor. It found out that male embraces the idea of having a specialization because it demonstrates exper-

tise in one's field. Thus, repeated writing and more publication while female geared into broadening one's horizon and exploring new areas of study. Simply put, men continuously produce publication in same area of study while female researchers do a much measured and different studies, therefore, less publication.

European Union (EU 2006 as cited in Abramo, D'Angelo, & Caprasecca, 2009) come about a similar result in the existence of gender gap on research productivity but cited different reasons to the highly limited feminine presence and marginal roles, to wit:

• Women represent only one sixth of research workers in the private sector and one third of the entire community of academic staff, though their representation has increased over time.

• Regarding the composition of academic staff, women tend to be concentrated in inferior roles. There is only one woman for every 3.5 men in the top academic ranks.

• In the scientific committees appointed by the European Community the proportion of women is about 20%, but the leadership of these committees is entrusted to a woman in only 10% of cases.

Nevertheless, change is inevitable and similar with much phenomenon gender research productivity is not an exemption. Xie and Shauman (2008) study reveals that overtime the gendered performance differences are disappearing. Additionally, there is very little direct effect of sex on research productivity (Xie and Shauman 2008). The study found out that the female researchers have started to produce more research studies than male researchers.

This is also reflected in other facets of education system as female pupils are gradually performing better than male students (Arensbergen, 2012). In respect to this paper, a productivity gap between male and female exist as presented and established by literature however there is a shift in the gap and it is slowly diminishing.

Foundations of motivation

Over the years, different perspectives on motivation have evolved. The perspectives can largely be classified as macro and micro. The macro describes the nature of humans, while the micro explains the specific behavior likes social, political and cultural factors. Cherry (2000), states that ancient philosophies Aristotle and Plato, medieval ones like Aquinas and recently Spinoza view human as rational beings, with divergent needs. Recent findings published by Hersey and Blanchard (2001) explain that advancement, autonomy, caring bosses, company philosophy, fringe benefits, improved communication channels with top management /supervisors, responsibility, good working conditions, tactful disciplinary machinery, good wages, clear promotion and growth opportunities, job security and interesting work motivate employees. The absence of motivational factors negatively impacts employee behavior and results to low work morale. Polarold (2002) identified certain motivational aspects found to be a success story for well performing organizations. They include good working environment, good financial incentives, and employee development and training and general welfare services. Aspects that further satisfy employees include recognition for good performance and employer branding

as a choice employer.

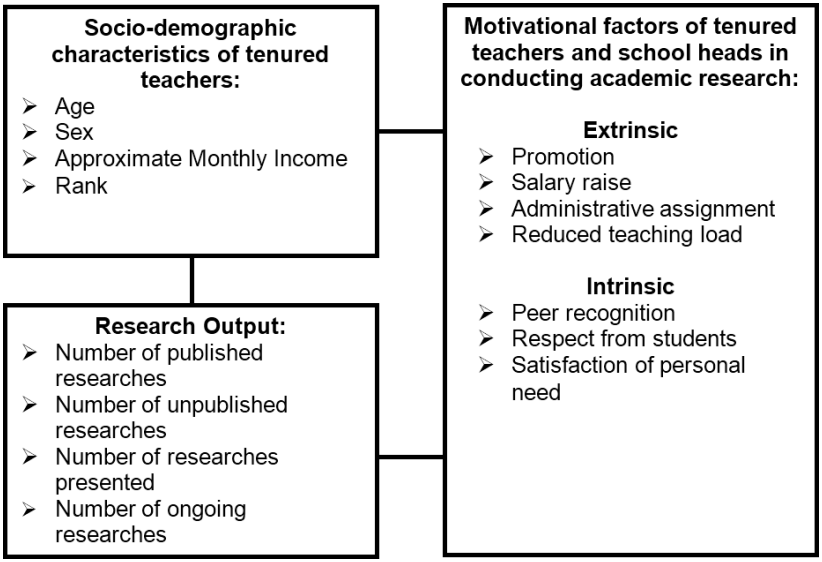
Thomson and Strikland (2001) found that in most successful Japanese companies, employees met regularly to have professionally inspirational dialogues and recite professional litany. They further noted that one of the most untapped motivational factors was the creation of 'unashamed' professional attitude and values including the belief in doing the best job and profession.The opportunity for recognition, power, social status, prestige, security, belonging, growth and development in their career and good leadership are much more important than money towards good performance. In view of the foregoing, public high school teachers can be motivated by among other things, a good salary, personal growth, development and sense of belonging/security, pride in the teaching profession, good working environment and conditions. Researchers (Bellois, 2003) in the field of motivation by consensus, agree that motivation plays an important role in the productivity and professionalism of employees. Whereas there may be no single 'best practice' concerning motivation to which all organizations should aspire to meet. Employees must feel valued, part and parcel of the organization. Some feeling of ownership on the part of the employees must prevail. Conductive leadership style that stimulates employees' performance should be put in place. Good employee relations that foster informal and interpersonal groups at work should also be at play.

Good compensatory schemes and also good salaries must be in place. Work must be as much fun as play. Actions to satisfy employees' needs, increase quality of work life must be tied to every H R practice in the organization.

Bryan (2003) summarily contends that motivation is crucial to every organization that seeks to effectively succeed.

Conceptual Framework

Figure 1. Conceptual Framework



The socio-demographic characteristics of tenured teachers and school heads of DepEd Imus may affect the extrinsic and intrinsic motivational factors in conducting their academic research. Their age, biological sex as to whether male or female, rank and approximate monthly income will greatly affect their extrinsic motivational factors such as promotion, salary raises, administrative assignment and reduced teaching load and the intrinsic motivational factors which include peer recognition, respect from students and satisfaction of personal need in conducting academic researchers will also greatly affect the conduct of academic research. The number of both published and

unpublished researches, number of researches presented and on-going researches can be a great indicator of their research productivity. Whether extrinsic or intrinsic factors motivate the tenured teachers and school heads in conducting academic research, it is a requisite to know which of these factors they considered most important.

Theoretical Framework

The research study employed the following theoretical bases:

Herzberg (1968) two-factor theory

Started with asking essential questions to accountants and engineers, Frederick Herzberg Bernard Mausner and Barbara Block Snyderman discovered that there exist two basic desires in employees' lives which are "to grow and to avoid pain". Growth (motivator) as represented by something that is intangible and makes workers feel important such as achievement, responsibility, recognition for achievement, and the challenge of the work itself. While pain avoidance (the hygiene factor), more on tangible and felt immediately consists of company policy, interpersonal relations, salary, and others (Dent, 2002)

He advanced his theory making by a distinction between lower and higher order needs. He described the lower order needs as potential dissatisfies or hygiene factors and the higher needs as potential satisfiers or motivators. Hygiene factors include pay, job security, supervision and working conditions. The motivators are those factors that increase motivation but whose absence does not necessarily result in dissatisfaction. These include achievement,

recognition, responsibility, advancement, growth and work design. The former are important bases of building a foundation of motivational factors while the latter's presence motivate employees' disposition for pursuit of professionalism.

Life Cycle Theory

Life Cycle theory, suggests that in general the research productivity of a researcher rises sharply in the initial stages of a career, peaks at the time of tenure review, and then begins a decline (Diamond 1986; Goodwin and Sauer 1995; Hu and Gill 2000 as cited in the work of Chen et al, 2010).

Research Questions

In general, the study sought to answer the relationship between the socio-demographic characteristics of the tenured teachers and school heads in the Schools Division of Imus City and their motivational factors in conducting academic research.

Specifically, the study sought answer to the following questions:

1. What is the socio-demographic characteristics of the tenured teachers and school heads in terms of:
    1.1 Age
    1.2 Sex
    1.3 Approximate monthly income
    1.4 Rank

2. What are the research output of the tenured teachers in terms of:

2.1 Number of published researches

2.2 Number of unpublished researches

2.3 Number of presented researches (local and international)

2.4 Number of ongoing researches?

3. What is the relationship between the socio-demographic characteristics of tenured teachers and school heads and their motivational factors in conducting academic research?

Hypothesis

The null hypothesis below was formulated based on the statement of the problem:

There is no significant relationship between the socio-demographic characteristics of tenured teachers and school heads and their motivational factors in conducting academic research.

Scope and Limitations

The study assessed the relationship between the socio-demographic characteristics of the tenured teachers and school heads in the Schools Division of Imus City and their motivational factors in conducting academic research.

The most important motivational factors of the tenured teachers and school heads in conducting research will serve as a baseline data for DepEd as to what support can be extended to them and in order for the tenured teachers and school heads to produce more researches

and contribute to the body of knowledge in basic education and academic researches.

The study is limited only to the tenured public elementary and secondary teachers and school heads of Schools Division of Imus City.

The research was conducted from June to September 2015.

Methodology

Sampling

There were six hundred and forty-one (641) tenured teachers and school heads from SDO Imus City who took part on the online survey and served as respondents of this study.

Data Collection

Data were gathered using a modified questionnaire from a study by Chen et al, 2010 entitled "Research Productivity of Accounting Teachers: An Exploratory Study" The questionnaire was designed to assess and determine the respondents' socio-demographic characteristics, motivational factors in conducting academic research and their research productivity.

The modified questionnaire consists of three (3) parts. The first part consists of the importance of the motivational factors to conduct academic research. The second part consists of the socio demographic characteristics of the respondents in terms age, sex, rank and approximate monthly income. The third part consists of the respondents' research productivity in terms of number of researches published and unpublished, number of researches presented and the number of on-going researches. The

research instrument was subjected to pre-testing prior to the actual survey to check the reliability and validity of the questionnaire.

Data Analysis

The study used different statistical treatment to analyze the data gathered. To determine the socio-demographic characteristics of the tenured teachers in terms of age, sex, rank and approximate monthly income, frequency counts and percentages was used.

This analysis was also utilized in determining the research productivity of the tenured teachers. On the other hand, computation for the mean and standard deviation was used to determine the most and least important motivational factors of the tenured teachers and school heads in conducting research.

In order to determine the relationship between the socio-demographic characteristics of the respondents and their motivational factors in conducting research, One-way ANOVA was utilized at 0.05 level of significance.

Results and Discussion

This part discusses the findings and outcome of the research conducted. The results of the study from the data gathered through the questionnaires were sorted, tallied and presented in tabular form for an easier analysis and discussion of results.

Results

Profile of the Respondents

Table 1 presents the profile of the respondents in terms of age and sex.

Table 1. Profile of the respondents according to age and sex

	Profile	Frequency	Percentage
Age			
	20 – 25	78	12.17%
	26 – 30	99	15.44%
	31 – 35	45	22.62%
	36 & above	319	49.77%
Total		**641**	**100.00%**
Sex			
	Male	81	12.64%
	Female	560	87.36%
Total		**641**	**100.00%**

Age. Based on the results, 319 respondents (49.77%) were 36 and above years old, 145 (22.6%) were between 31-35 years old, 99 (15.44%) were between 26-30 and 78 (12.1%) were between 20-25 years of age. Most of the respondents were between 36 and above years of age considered as experienced teachers and school heads. Their length of service as a teacher along with their knowledge and skills in teaching developed through time made them well experienced.

Sex. In terms of sex, majority (87.36%) of the respondents were female while eighty one (12.64%) were males. Having more educational opportunities, female also tend to

take teaching as a profession and is being tied generally to female.

Table 2 shows the profile of the respondents according to approximate monthly income and rank.

Table 2. Profile of the respondents according to approximate income and current academic position/designation.

Profile	Frequency	Percentage
Approximate monthly income		
Php 15,000 – 20,000	426	66.46%
Php 20,001 – 25,000	158	24.65%
Php 25,001 – above	57	2.89%
Total	**641**	**100.00%**
Current Academic Position/ Designation		
Teacher I – III	590	92.04%
Master Teacher I – II	27	4.21%
Head Teacher I – VI	7	1.09%
Principal I – IV	17	2.65%
Total	641	100.00%

Approximate monthly income. Based on the results, 426 (66.46%) of the respondents have an approximate monthly income of Php 15,000 – 20,000. One hundred fifty eight (24.65%) have an approximate monthly income of Php 20,001 – 25,000 while 57 (8.89%) respondents are approximately earning Php 25,001 and above per month. Majority of the teachers are earning the starting salary and is considered low as compared to other Asian countries. (Virola, 2007).

Current Academic position/designation. In terms of current academic position/designation, majority of the 641 respondents which is 590 (92.04%) are holding academic position of Teacher I – III. Twenty seven (4.21%) are Master Teacher I – II, 7 or 1.09%) are Head Teacher I – VI while 17 (2.65%) are Principal I – IV.

Research Productivity

Table 3 shows the distribution of respondents based on the number of work time spent daily on research for the last year from June 2014- June 2015.

Table 3. Distribution of respondents according to number of work time spent daily on research

Profile	Frequency	Percentage
None	**581**	**90.61%**
30 minutes	21	3.28%
60 minutes	17	2.35%
90 minutes	22	3.43%
Total	641	100.00%

As shown in Table 3, majority of the respondents did not spend time in conducting research from June 2014 to June 2015. 21 (3.28%) spent 30 minutes, 17 (2.65%) spent a daily work time of 60 minutes while 22 (3.43%) spent 90 minutes daily work time in conducting research.

Table 4, shows the distribution of the respondents' research output in terms of the number of researches completed, presented, published and currently completing the research.

Table 4. Distribution of the respondents' research productivity

Research Outputs	No. of Researches	Percentage
Completed but unpublished	19	50.00%
Completed and published	6	15.79%
Completed and presented	2	5.26%
Completed, Presented & Published	1	2.63%
Ongoing research	10	26.32%
Total	**38**	**100.00%**

As shown in Table 4, out of the 641 respondents, only 38 researchers served as research outputs. Nineteen (50%) researches were completed but unpublished, 6 (15.79%) were completed and published in different research journals, 2 (5.26%) were completed and presented in different research conferences and fora. Only one (1) or 2.63% was completed, presented and published while 10 (26.32%) are still being completed.

Importance of motivational factors to conduct academic research

Table 5 shows the importance of motivational factors of the respondents to conduct research.

Motivational Factor	Weighted Mean	Level of Importance
Respect from students	3.88	Very Important
Salary Raise	3.86	Very Important
Satisfaction of personal need	3.68	Very Important
Promotion	3.56	Very Important
Peer recognition	3.43	Important
Reduced teaching load	3.23	Important
Administrative assignment	3.21	Important

1.00-1.5= Not Important at all 1.51-2.50= Less Important 2.51-3.50= Important 3.51-4.0= Very Important

As shown in Table 5, intrinsic motivation such as respect from students (3.88) and satisfaction of personal need (3.68), are two of the top three motivational factors that tenured teachers and school heads considered as Very Important.

Relationship between socio demographic characteristics of the respondents and their motivational factors to conduct academic research

The succeeding tables show the results of the analysis of variance of the socio-demographic characteristics of the respondents and their motivational factors in conducting academic research.

Table 6. Relationship between age of the respondents and their motivational factors to conduct academic research

Source	df	Sum of Squares	Mean Square	*F*	*p*
Between Groups	3	0.06	0.02	0.14	0.92
Within Groups	637	88.07	0.14		
Total	**640**	**88.13**			

$p < 0.05$

The results presented in table 6 shows that there was no significant relationship of age to the motivational factors in conducting academic research at the $p < 0.05$ level for the three age groups, $F(3,637) = 2.60, p = 0.92$. This means that age is not related to the motivational factors in

conducting academic research.

Table 7. Relationship between sex of the respondents and their motivational factors to conduct academic research

Source	**df**	**Sum of Squares**	**Mean Square**	***F***	***p***
Between Groups	1	0.01	0.01	0.10	0.75
Within Groups	639	88.12	0.14		
Total	**340**	**88.13**			

$p < 0.05$

The results of the analysis shown in table above 7 reveals that there was no significant relationship of sex to the motivational factors in conducting academic research at the **$p < 0.05$** level for male and female respondents, **$F(2,638) = 3.84, p = 0.75$.** This suggests that sex is not related to the motivational factors in conducting academic research.

Table 8. Relationship between approximate monthly income of the respondents and their motivational factors to conduct academic research

Source	**df**	**Sum of Squares**	**Mean Square**	***F***	***p***
Between Groups	2	3.49	1.74	13.15	0.00
Within Groups	638	88.12	0.14		
Total	**640**	**88.13**			

$p < 0.05$

The data in table 8 above shows that there was a significant relationship of approximate monthly income to the

motivational factors in conducting academic research at the **p < 0.05** level for the three income groups, **F(2,638) = 3.00, p = 0.00.** Post hoc comparisons using the Tukey HSD test indicated that the mean score of the respondents whose average monthly income is Php 20,001 – 25,000 **(M = 3.68, SD = 0.32)** was significantly different both with those whose average monthly incomes are Php 15,000 – 20,000 **(M = 3.51, SD = 0.35)** and Php 25,001 – above **(M = 3.51, SD = 0.52)**. However, the two latter income groups did not significantly differ from one another. These results signify that the respondents whose average monthly income was Php 20,001 – 25,000 were more motivated to conduct academic research than those from the other income group.

Table 9. Relationship between academic position/ designation and motivational factors

Source	**df**	**Sum of Squares**	**Mean Square**	***F***	***p***
Between Groups	2	0.25	0.13	0.92	0.40
Within Groups	638	87.88	0.14		
Total	**640**	**88.13**			

p < 0.05

The results as shown in table 9, suggest that there was no significant relationship of position to the motivational factors in conducting academic research at the **p < 0.05** level for the three categories of position, **F(2,638) = 3.00, p = 0.40**. This suggests that position is not related to the motivational factors in conducting academic research.

Discussion

The study was limited to tenured elementary and secondary teachers and school heads of the Schools Division of Imus City.

Results of the study revealed that the respondents of the study were mostly female, 36 and above years old, with approximate monthly income between Php 15,000-20,000 and an academic position/designation between Teacher I-III. As stated by Catadman (2014), Usop, et al (2013) and Mumtaz (2010) they assert that “majority of teachers are between the age bracket of 31-40 and are generally middle age”. In terms of sex, female respondents dominated the male respondents gathering 87.36 percent of the total population. As stated by Usop, et.al, (2013), “female dominate the teaching profession”. In terms of approximate monthly income, Virola (2007) affirms that “teachers are grossly underpaid as reflected in the World Education Indicators (WEI) Programme”, receiving basic salary but low. In the same study by Barcelona (2013), she asserts that “majority worked as Teacher I and the remaining teacher as Teacher II”. These established literatures are in conformity with the results of the current study where it found out that majority of the teachers are well experienced as revealed in their age and academic position/designation and attractive professional compensation packages are requisites to keep them motivated.

In a study by Chen, et al (2010), results revealed that “research productivity of teachers can be influenced by the allocation of working time to research activities and the financial research support”. In the current study, results

showed that majority of the respondents do not allot daily work time in conducting research for the past year from June 2014-2015 which results to non-production of action researches – school-based and evidence-based. Despite the revision of guidelines in the availment of the BERF, teachers and school heads of the Schools Division of Imus City do not take advantage of this funding. These can be traced from the results of the current study where approximate monthly income has significant differences among respondents as a socio demographic characteristic that affects the respondents' motivational factor in the conduct of academic research. Salary raise is the second top motivational factor, considered to be an extrinsic motivator or investment factor (Smart, 1999 and Mc Keachie, 1979). In addition, Hersey and Blanchard (2001) explained that "good wages motivate employees". This only means that if their salary will increase due to the production or conduct of research, therefore, they will be encouraged to do more researches.

Topping the motivational factor to conduct academic research is **respect from students** and thirdly is the **satisfaction of personal need** which (Smart, 1999 and Mc Keachie, 1979) identified as intrinsic motivator or consumption factor. Results of the current study is in consonance with Thomson and Strikland (2001) findings who assert that "the opportunity for recognition, power, social status, prestige, security, belonging, growth and development in their career and good leadership are much more important than money towards good performance". More so, Mc Keachie, (1979), insists that "teachers publish not for external rewards but because they enjoy the process

of inquiry".

Bellois (2003) in the field of motivation by consensus, agree that "motivation plays an important role in the productivity and professionalism of employees".

Tenure, being a motivational factor in research productivity as stated by Chen, et al (2013), on the other hand was a delimiting factor in the current study. Theoretically, life cycle theory asserts that "in general the research productivity of a researcher rises sharply in the initial stages of a career, peaks at the time of tenure review, and then begins a decline". Since teachers in the initial stage of their career are hired with tenure, the motivation to conduct research became low. Furthermore, monitoring and evaluation in the conduct of research projects and development has become lenient.

In summary, not only personal motivators whether extrinsic or intrinsic motivate the respondents to conduct academic research. Tenure, work time allotted to conduct research and funding are also factors that increase or decrease their motivation. Actions to satisfy employees' needs and increase quality of work life must be tied to every Human Resource practice at DepEd School Divisions of Imus City. As Bryan (2003) summarily contends, "motivation is crucial to every organization that seeks to effectively succeed".

Conclusion

In the light of findings of the study, the following can be concluded:

1. Of the 641 respondents, majority are female, 36 years old and above, has an approximate monthly income of Php 15,000 - 20,000 and are between Teacher I - III.

2. Out of the 641 respondents, there were only 38 local research studies conducted, 10 of which are still ongoing. Of the two hours allotted for ancillary works of teachers and school heads, majority do not allot work hours for research.
3. Data revealed that top three motivational factors are **Respect from Students, Salary increase and Satisfaction of Personal Needs.** Of the top three factors, only Salary increase is Extrinsic while the two factors are Intrinsic.
4. Age, sex and academic position/designation have no significance with the motivational factors to conduct research, whereas with approximate monthly income there is significant difference among respondents.

Recommendations

The following recommendations are given for future undertakings:
1. There is a need to review the daily work-time spent for ancillary hours allotted for teachers and school heads for them to allocate time for the conduct of academic research. More so, there is a need to review reward system or service credit to encourage teachers and school heads to do more researches. Further, a similar study be conducted regarding research productivity as a priority requirement for tenure ship.
2. There is also a need to mandate research productivity as one of the key result areas in the Individual Performance Commitment Result Form (IPCRF) of teachers and school heads.
3. PPRD's Monitoring and Evaluation team should strictly monitor and evaluate research productivity as one of the

Key Result Area.

4. In addition, future researchers should conduct more studies and include other variables such as civil status, highest educational attainment and subjects handled using larger samples or total enumeration of respondents which may result to more substantive findings.

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"If you want truly to understand something, try to change it."

-Kurt Lewin

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