# RESEARCH CAPABILITY OF PUBLIC SCHOOL TEACHERS: A BASIS FOR RESEARCH CAPABILITY ENHANCEMENT PROGRAM

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## Abstract

*This study aimed to assess the teachers' research technical writing skills that set as the basis of capability enhancement program that can nurture and produce upright and competent graduates and empowered community, through relevant and sustainable higher professional and technical instruction, research, extension and production services should take part in helping the DepEd teachers as a member of the larger community. Based on the results most of the respondents were 21-30 years old, female, married, and almost 6-15 years in service as public elementary school teachers. Most of them were finished Bachelor's degree with specialization on Bachelor of Elementary Education (BEEd). Most of them are Teacher I and II, few are Teacher III and Master Teachers. It was also determined that most of them attended 3-6 research seminars.It was also revealed that the teachers were moderately capable in terms of technical writing of*

*completed research. The findings also convened that there is no significant relationship between their profiles and their research capability except from highest educational attainment which shows significant relationship with research capability, therefore the results of analysis is partly upheld. Based on the findings and conclusions the following are the researchers recommendations: the need for intensive seminar/ training write-shop for technical writing of completed research, the teachers needs to be highly capable in writing completed research that can be presented and published, and the researchers also recommended the action plan for the seminar/training write-shop activities, timeframe, expected output, material requirements, and the responsible entity/person.*

**Keywords**

Teachers' Profile, Research Capability, Enhancement Program, Public School Teachers

## 1. Introduction

Research is a very important tool in national and global progress. Its value cannot be underestimated for it is directed towards the preservation and improvement of quality of life Moreover, the purpose of research is to serve man and the goal of research is good live. Hence, due to research man becomes progressive because man is utilizing the products of research. Research serves as a solution to societal problems that are apparent from community level up to different government and non-government agencies. Thus, most government and nongovernment agencies are developing research agenda in order to find solutions to prevailing problems observed in the society, (Calderon and Gonzales, 1993).

According to Faltado III. EdD, et. al. (2016), research is widely recognized as an important tool to solve the different problems of man and to make life more colorful and convenient (Ciocon, J.L, 2016).

Furthermore, in a study conducted by Avance (2017) entitled Master Teachers ' Perception of their Research Capabilities: Base for the Development of a Training Program revealed that most master teachers have not yet conducted any research and have not attended training in any research training at the division, regional, national and international levels.

Bocar (2011) study revealed that the administration of a questionnaire and the retrieval of the same is a means of gathering the data in conducting a research investigation; nevertheless, the student-researchers found the visibility and availability of the respondents to be very

difficult. On the other hand, Beverly (2011) revealed that the easiest part of quantitative research for some students would be in the collection of study-based data.

The Department of Education as an agency of the government should take part in addressing problems particularly the teaching-learning process. In other words, the teachers should conduct research relative to the solutions of the problems in their classrooms which will in turn improve the educational system of the country. The DepEd issued DO No. 65, s. 2003 which institutionalizes the research-based decision and policy making in the department. This order stipulates that policies in the department should be based on research. Hypothetically, some teachers are not skillful in conducting research particularly classroom based or action research.

How can these teachers help address the problems encountered if they are not skillful in conducting research? This situation should not be neglected and should be given attention not only by the Department of Education but also other institutions who are affected by their outputs.

## 1.1 Research Capability

It is a serious and diligent quest for knowledge that must be promoted because its results have far-reaching benefits. It expands that the field of knowledge further, discovering and generating new concepts, practices, and understanding. These in turn redound to application that advance socio-economic enterprises and benefit communities (Formeleza and Pateña, 2013).

Many studies show the significant role of research in education, that is why the policy makers made a several memoranda that will obliged not only the people in the administration but also the teachers to conduct research. In the higher education institution, the faculties are mandated to do a research activity because it is mandated by the law and it is one the core function in the HEI.

To encourage the faculty to conduct research, the administration provided many benefits like funds, incentives and it can be used in the promotion of the faculty.

## 2. Method

### 2.1 Design

The study design is descriptive correlational designs. The independent variable is the teachers' profile consist of age, gender, civil status, years in service, year level, highest

educational attainment, position, field of specialization, and number of seminars/trainings attended while the dependent variable is the level of teachers' research capability.

## 2.2 Research Setting

This study was conducted in public elementary school in Biñan City as part of the extension and community involvement program of College of Teacher Education of Laguna State Polytechnic University, Los Baños, Laguna.

## 2.3 Sampling Procedure

Since the participants of this study were the teachers that attended the extension program, purposive sampling was applied.

## 2.4 Participants

The respondents of the study were the 79 teachers of Malaban Elementary School of Biñan City which consist of 7 male teachers and 72 female teachers.

## 2.5 Research Instrument

The instrument of this study is a survey questionnaires consist of teachers' profile, and 18 indicators for level of teachers' research capability adopted from the study entitled, "Research Capabilities of Public Secondary and Elementary School Teachers in the Division of Antipolo City" by Abarro, Juan O, Ph.D., and Mariño, Wilfredo P, Ph. D.

## 2.6 Research Procedure

The researchers assessed the research capability of the participants before the enhancement research capability program was implemented.

## 2.7 Statistical Analysis

Mean and Standard Deviation were used to describe the level of teachers' research capability, and Pearson r moment of correlation and Chi-square were used in determining the relationships between independent and dependent variables.

# 3. Results

Figure 3 reveals that majority of the teacher-respondents belong to 21 to 30 years old (39 or 49%). Some of them are 31-40 years old (25 or 32%), while others are 41-50 years old (12 or 15%) and retiring age of 51-60 years old (3 or 4%). This finding points out that they are in their average years, neither too young nor too old for their teaching career, and with their teaching

experiences. It can be noted that majority of the teachers are in their middle age to keep abreast of their functions as public elementary teachers.
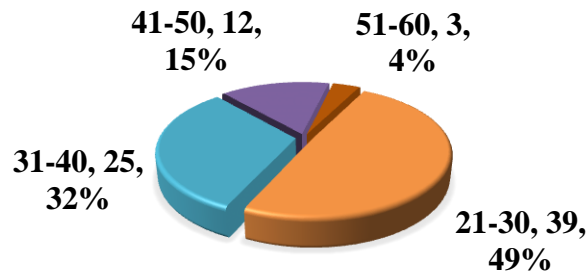
**Figure 3:** *Respondents' Age*

Figure 4 shows that the teachers in this school was dominated by a female teachers which is 91 percent or a total of 72 teachers as compared to male which is 9 percent or a total of only 7 teachers.
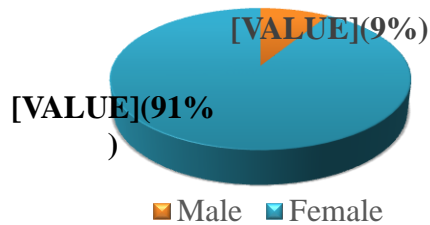
**Figure 4:** *Respondents' Sex*

Figure 5 shows that a small number of the respondents are widow (5 or 6%), where married respondents are dominant which comprised of 54 or 69%, and single are 20 or 25%. Based on this result, it implies that public elementary school under this study is dominated by married teachers, which can be gleaned that they have responsibilities both at school and their home.
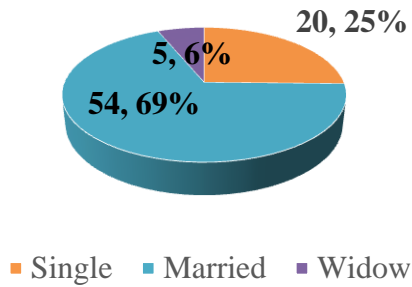
**Figure 5:** *Respondents' Civil Status*

Figure 6 presents 43% are in the service for 6 to 10 years. It is consecutively followed by a number of teachers who served from 11 to 15 years (32%). Further, only 14% of them is in the service for 16 years and above while only 11% are 1 to 5 years in service. Based on the data, majority of the teacher-respondents are in middle years in the field of teaching.
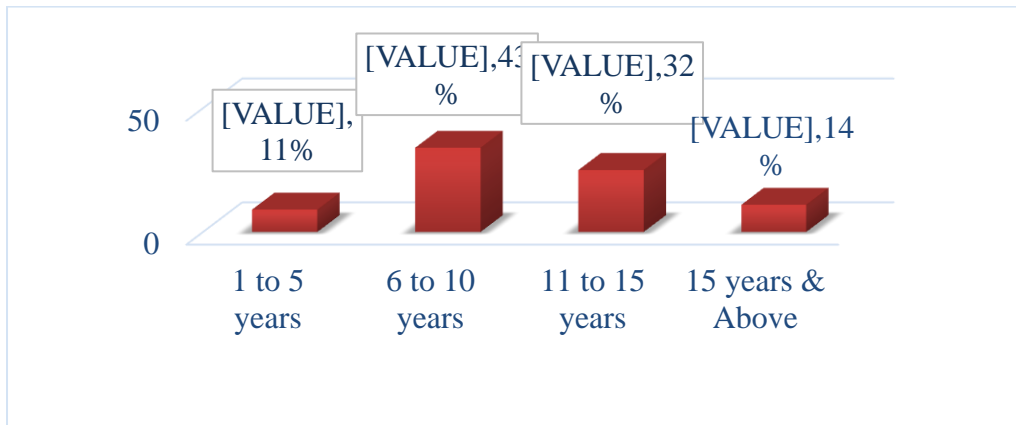


**Figure 6:** *Respondents' Years in Service*

Majority of the teacher-respondents are Bachelor's Degree holder (59 or 73 %). On the other hand, there were teacher-respondents who were unit earner on their Master's Degree (10 or 13%). It also reveals that a very small percentage of them gained Master's degree (7 or 8%) while units in Doctorate Degree (3 or 4%). Given these data, it can be observed that more than 80% of them have not enrolled and not continue their professional growth and development because few of them continued their master's degree. Only 4% of them continued their doctorate degree. This finding implies that administrator should encourage those teachers to study or enroll in the graduate school to pursue the functions required as public school teachers.
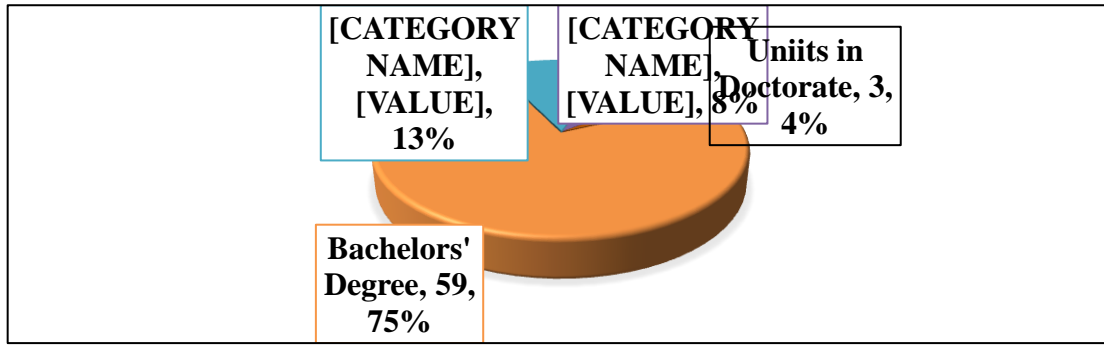
[CATEGORY NAME], [VALUE], 13%

[CATEGORY NAME], [VALUE], 8%

Uniits in Doctorate, 3, 4%

Bachelors' Degree, 59, 75%

**Figure 7:** *Respondents' Highest Educational Attainment*

As illustrated on the figure, most of the respondents were Teacher II with 42 or 53% followed by Teacher I with 23 or 29%, then Teacher III with 11 or 14%., and Master Teacher are 3 or 4%. This means that most of the respondents were Teacher II followed by Teacher I which shows that they really need additional achievements for their promotion.

[VALUE], 53%

[VALUE],29%

[VALUE],14%

[VALUE], 4%

| | 60 | 40 | 20 | 0 |
|---|---|---|---|---|

Teacher I     Teacher II     Teacher III     Master Teacher

**Figure 8:** *Respondents' Position*

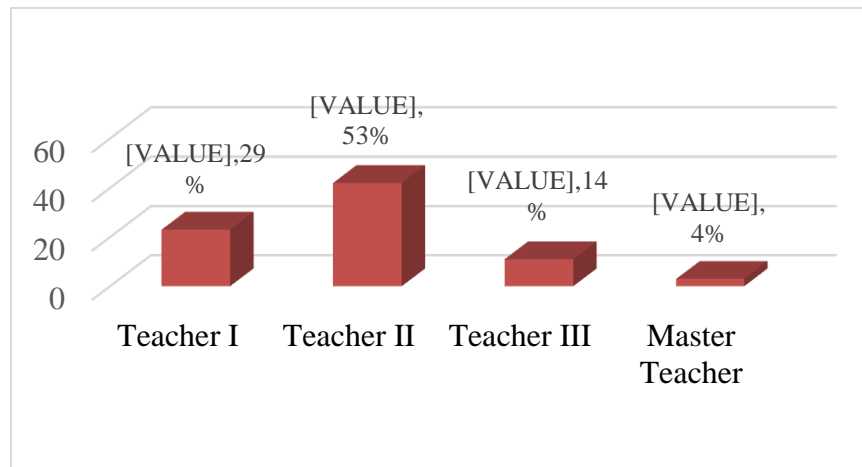As illustrated on the figure, most of the respondents are Bachelor of Elementary Education (BEEd) with 37 or 47% followed by Bachelor of Secondary Education (BSEd) Major in English with 15 or 19%, then BSEd Math with 12 or 15%, followed by BSEd Science with 8 or 10%, and BSEd Filipino with 9 or 11%.  This means that most of the respondents were BEEd majors since the school offerings is elementary.
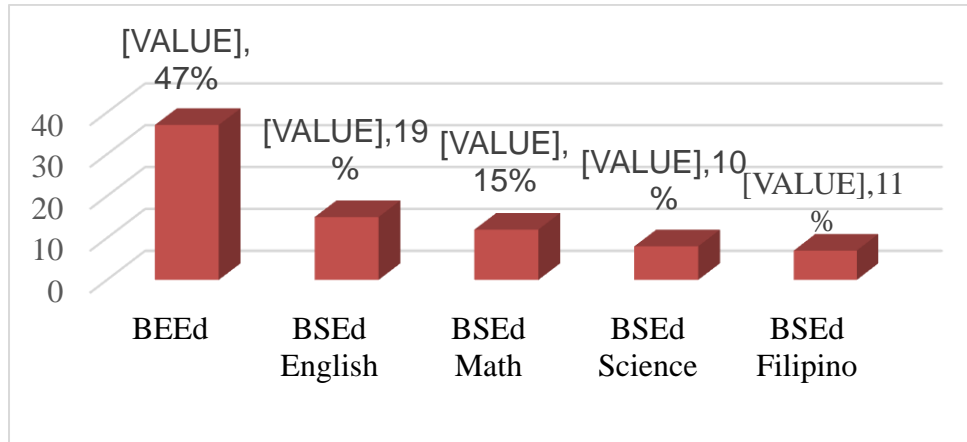
**Figure 9:** *Respondents' Field of Specialization*

It was shown in table 1 that 28 or 35% of the respondents were attended 3-4 research seminars, followed by 5-6 seminars with 20 or 25% respondents, while some have attended 11 & above consist of 9 or 11%, then same numbers consist of 7 or 9% were attended 7-8 and 9-10 seminars, while 8 or 10% were 1-2 seminars attended. On this results, it can be gleaned that the teachers attended various research seminars.

**Table 1:** *Distribution of Teachers' Number of Research Seminars Attended*

| Number of Seminars Attended | Frequency | Percentage |
|---|---|---|
| 11 & above | 9 | 11% |
| 9-10 | 7 | 9% |
| 7-8 | 7 | 9% |
| 5-6 | 20 | 25% |
| 3-4 | 28 | 35% |
| 1-2 | 8 | 10% |
| Total | 79 | 100% |

It was revealed in table 2 that the teachers were capable in terms of formulating research title ($x˘= 3.55$; SD =0.72), writing rationale/introduction/background of the study ($x˘= 3.53$; sd =0.97),writing statement of the problem ($x˘= 3.63$; sd =0.85), formulating hypothesis/hypotheses ($x˘= 3.52$; SD =0.45); writing significance of the study ($x˘= 3.71$; SD =0.29), and writing scope and limitation of the study ($x˘= 3.52$; SD =0.59).

The teachers were moderately capable of writing the research conceptual framework and research paradigm ($x˘= 3.45$; SD =0.72), writing definition of terms ($x˘= 3.23$; SD =0.39), and

writing the review of related literature and studies (x˘= 2.83; SD =0.79), while they were slightly capable in writing research proposal (x˘= 2.21; SD =0.72), writing research methodology (x˘= 2.28; SD =0.57), determining the research design to apply in their study (x˘= 1.85; SD =0.77), writing abstract (x˘= 1.72; SD =0.99), writing results and discussion (x˘= 1.92; SD =0.89), writing conclusion (x˘= 1.87; SD =0.69), and writing recommendation (x˘= 2.18; SD =0.87), then they were not capable of adopting/constructing/modifying research instrument (x˘= 1.44; SD =0.87), and applying APA format (x˘= 1.27; SD =0.89). The overall teachers' research capability is moderately capable (x˘= 2.67; SD =0.89).

**Table 2:** *Teachers' Level of Research Technical Skills*

| Indicators<br>I am capable of… | Mean | SD | Verbal Description |
|---|---|---|---|
| formulating research title | 3.55 | 0.72 | Capable |
| writing rationale/introduction/background of the study | 3.53 | 0.97 | Capable |
| writing the research conceptual framework and research paradigm. | 3.45 | 0.45 | Moderately Capable |
| writing statement of the problem | 3.63 | 0.85 | Capable |
| formulating hypothesis/hypotheses | 3.52 | 0.45 | Capable |
| writing significance of the study | 3.71 | 0.29 | Capable |
| writing scope and limitation of the study. | 3.52 | 0.59 | Capable |
| writing definition of terms | 3.23 | 0.39 | Moderately Capable |
| writing the review of related literature and studies | 2.83 | 0.79 | Moderately Capable |
| writing a research proposal | 2.21 | 0.47 | Slightly Capable |
| writing research methodology | 2.28 | 0.57 | Slightly Capable |
| determining the research design to apply in my study. | 1.85 | 0.77 | Slightly Capable |
| adopting/ constructing/ modifying research instrument | 1.44 | 0.87 | Not Capable |
| writing abstract | 1.72 | 0.99 | Slightly Capable |
| writing results and discussion | 1.92 | 0.89 | Slightly Capable |
| writing conclusions | 1.87 | 0.69 | Slightly Capable |
| wriitng recommendation | 2.18 | 0.87 | Slightly Capable |
| applying APA format | 1.27 | 0.89 | Not Capable |
| Composite Mean | 2.67 | 0.89 | Moderately Capable |

Legend:

| Weighted Mean | Interpretation |
|---|---|
| 4.50 - 5.00 | Highly Capable |
| 3.50 – 4.49 | Capable |
| 2.50 – 3.49 | Moderately Capable |
| 1.50 – 2.49 | Slightly Capable |
| 1.00 – 1.49 | Not capable |

Table 3 revealed that based on the results the respondents profile in terms of age (r=0.041; N=79; p-value-0.359), sex ($X2$ =15.019; df=12; p-value= 0.240), civil status ($X2$ =23.523; df=24; p-value= 0.489), position ($X2$ =77.762; df=60; p-value= 0.061), years in service ($X2$ =61.340; df=48; p-value= 0.094), field of specialization ($X2$ =58.579; df=48; p-value= 0.141), and number of research seminars attended (r=0.173; N=79; p-value-0.064) are not correlated with research capability.

It was determined that most of respondents' profile are not significantly correlated with their research capability except from highest educational attainment which is significantly correlated with research capability ($X2$ =52.30; df=36; p-value= 0.039).

**Table 3:** *Analysis on the Correlation between the Respondents' Profile and their Research Technical Skills*

| Variables | Correlation | p-value |
|---|---|---|
| Age & Research Capability | r-value= 0.041 N=79 | 0.359 |
| Sex & Research Capability | $X^2 = 15.019$ df=12 | 0.240 |
| Civil Status & Research Capability | $X^2 = 23.523$ df=24 | 0.489 |
| Highest Educational Attainment & Research Capability | $X^2 =52.300*$ df=36 | 0.039 |
| Position & Research Capability | $X^2 =77.762$ df=60 | 0.061 |
| Years in Service & Research Capability | $X^2 =61.340$ df=48 | 0.094 |
| Field of Specialization & Research Capability | $X^2 =58.579$ df=48 | 0.141 |
| Number of Research Seminars Attended and Research Capability | r-value= 0.173 N=79 | 0.064 |

*$p-value \leq 0.05$ & **$p-value \leq 0.01$

## 4. Discussion

Based on the results most of the respondents were 21-30 years old, female, married, and almost 6-15 years in service as public elementary school teachers. Most of them were finished Bachelor's degree with specialization on Bachelor of Elementary Education (BEEd). Most of them are Teacher I and II, few are Teacher III and Master Teachers. It was also determined that most of them attended 3-6 research seminars.

It was also revealed that the teachers were moderately capable in terms of technical writing of completed research.

## 4.1 Conclusion

The findings also convened that there is no significant relationship between their profiles and their research capability except from highest educational attainment which shows significant relationship with research capability, therefore the results of analysis is partly upheld.

## 4.2 Implication and Recommendation

This study shows that most of the participants were slightly research capable in terms of different research technical writings.

Based on the findings and conclusions the following are the researchers recommendations: the need for intensive seminar/ training write-shop for technical writing of completed research, the teachers needs to be highly capable in writing completed research that can be presented and published, and the researchers also recommended the action plan for the seminar/training write-shop activities, timeframe, expected output, material requirements, and the responsible entity/person.

The first phase of this project is measuring the level of research capability of teachers in DepEd to determine their research capability and identify the teachers that will undergo the said series of seminars that will help them to enhance and develop their research capability and Phase 2- Series of seminars on Teachers' Research Capability and Technical Writing Training/ Writeshop on Research wherein it consist of six activities:

1. Technical Writing Training and Writeshop on Research Title;
2. Technical Writing Training and Writeshop on Research Proposal;
3. Seminar Workshop on Data Gathering and Statistical Analysis;
4. Technical Writing Training and Writeshop on Completed Research
5. Seminar Workshop on Research Presentation; and
6. Seminar Workshop on Research Publishable Format.

**Table 4:** *Proposed Action Plan*

| Activities | Time Frame | Expected Output | Material Requirements | Responsible Entity/ Person |
|---|---|---|---|---|
| 1.Assessment of Teachers' Research Capability | October to Dec. 2018 | Level of Teachers' Research Capability | Print-out of Survey Questionnaires | Project heads and leaders GSAR Faculty and students |
| 2. Seminars on Research Capability | January / February 2019 | Teachers who are research capable | Printed Materials, Certificates, Tokens, Foods and other materials needed | Project heads and leaders GSAR Faculty and students |
| 3. Technical Writing Training and Writeshop on Research Title | January / February 2019 | Teachers capable of writing and formulating Research titles. | Printed Materials, Certificates, Tokens, Foods and other materials needed | Project heads and leaders GSAR Faculty and students |
| 4) Technical Writing Training and Writeshop on Research Proposal | February 2019 | Teachers capable of writing and formulating Research Proposals | Printed Materials, Certificates, Tokens, Foods and other materials needed | Project heads and leaders GSAR Faculty and students |
| 5) Seminar Workshop on Data Gathering and Statistical Analysis | February 2019 | Teachers capable of organizing data gathered and analyzing with application of statistical tools. | Printed Materials, Certificates, Tokens, Foods and other materials needed | Project heads and leaders GSAR Faculty and students |
| 6)Technical Writing Training and Writeshop on Completed Research. | March 2019 | Teachers capable of writing completed research. | Printed Materials, Certificates, Tokens, Foods and other materials needed | Project heads and leaders GSAR Faculty and students |
| 7) Seminar Workshop on Research Presentation | March 2019 | Teachers capable on Research presentation. | Printed Materials, Certificates, Tokens, Foods and other materials needed | Project heads and leaders GSAR Faculty and students |
| 8) Seminar Workshop on Research Publishable | March 2019 | Teachers capable of writing research in publishable | Printed Materials, Certificates, Tokens, Foods and other | Project heads and leaders GSAR Faculty and students |

| Format | | | format. | materials needed | |
|---|---|---|---|---|---|
| 9) Monitoring and Evaluation | March to July 2019 | | Monitoring and evaluation the status of completed research | Printed Materials, ETS forms | Project heads and leaders GSAR Faculty and students |
| 10)Validation of Completed Papers for Presentation/ Publication | August to September 2019 | | Research papers ready for presentation/publi cations | Printed Materials Evaluation Form | Project heads and leaders GSAR Faculty and students |
| 11) Submission of Manuscript for presentation/ publication | August to October 2019 | | Presented/ Published Research Papers | Acceptance Letter Google Scholar Cite Refereed Journal | Project heads and leaders GSAR Faculty and students |

**4.3 Limitation and Suggestion for Future Studies**

The participants of the study were limited only for the teachers in one public elementary school in Biñan City, further studies should attempt much broader scope and should also take into consideration their research productivity to determine the importance of being research capable on their research performance.

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