

**A RESEARCH NEEDS ASSESSMENT OF THE SENIOR HIGH SCHOOL FACULTY OF  
BIÑAN INTEGRATED NATIONAL HIGH SCHOOL: RECOMMENDATIONS  
FOR A RESEARCH CAPABILITY ENHANCEMENT PROGRAM**



**ENGR. FREDDIE JOHN V. CALUMNO**  
Teacher II  
Biñan Integrated National High School

**ABSTRACT**

The lack of involvement of teachers to engage in research is still evident. Some venture into crafting a proposal but get lost in translation as time passes by. This study assessed the research needs of senior high school teachers of Biñan Integrated National High School. It sought to use the findings as a basis for recommendations for a research capability enhancement program. A descriptive research design was deemed appropriate for the study. Using a validated researcher-made instrument, procedures for data analysis employed descriptive and inferential statistics. The study has established that the majority of the teacher-respondents have low to no research productivity and all indicators of the five research needs have been assessed as "much needed". The teaches did not differ significantly in research needs across profile variables except for single teachers who have a higher need than married teachers in terms of drawing conclusions and recommendations and citing references. Recommendations for a research capability enhancement program have been provided based on the findings.

**Keywords:** *research productivity, research needs, enhancement program*

## INTRODUCTION

According to DO No. 16, s. 2017, as stated in the enclosed Research Management Guidelines, DepEd has instituted research to promote an environment of evidence-based decision-making and establish a culture of research, most especially among its teachers. Research committees are at the forefront, from the regional to the division level, that aims to provide guidance and governance of research initiatives of teachers. Funding for such initiatives has also been provided by DepEd to offer additional motivation to teachers to pursue research undertakings. Ramirez (as cited in Pamatpat, 2016) recommends that promoting faculty participation in the institution's research function will need a mixture of extrinsic and intrinsic reward strategies.

Research capability potentially implies the ability of people, organizations, and processes to efficiently and effectively carry out and disseminate high-quality research (Albarquez and Palcabal, 2014). As one of any educational institution's roles, the conduct of research needs people who are capable enough to generate quality research that would substantiate academic achievement and excellence.

The present pandemic has given the teachers a front-court view of the new reality. Yet, as they say, the show must go on. Research productivity in the academe needs to continue and as such, this undertaking has surely been hampered to some degree due to the pandemic, whether from an academic or a professional perspective. Much of the difficulties lie in the manner of how to conduct a research undertaking during these uncertain times.

The lack of involvement of teachers to engage in research is still evident. Some venture into crafting a proposal but get lost in translation as time passes by. As a result, the research initiative does not go into completion. However, most foretelling is not being able to engage one's self in research due to reasons only the would-be teacher-researcher has kept to him/herself. To continue to defer research that is not yet ethically and logically feasible, thus

allowing research to proceed if and when it is, the task would seem easy enough. Although, it is arguable that it won't be easy to distinguish the distinction between these possibilities (Wood, Rogers, Sivaramakrishnan, and Almeling, 2020)

But there is a need to grasp this unique opportunity to transform research practices and overall investigative culture (Michopoulou, 2020). Thus, it is imperative to consider that this present pandemic is a research driving force owing to life changes and new ongoing phenomena, not just in the medical field, but in every academic field. This pandemic has stalled and deviated normative endeavors in the academe. Faculty research initiatives were not spared from this. Ramirez (as cited in Pamatpat, 2016) stressed that faculty members considered the need for competence as the most important research motive and time posing as the greatest barrier to faculty research initiatives.

Biñan Integrated National High School (BINHS) has approximately 89 teachers in the senior high school department for Academic Year 2020-2021. In the last 5 years, only one senior high school teacher was awarded as a BERF grantee at the regional level. Several aspirants were able to present their proposals at the division level; however, the fruition of the proposed studies seems to have never gotten underway. These teachers, whether researching for further studies or school innovations, are prone to encountering obstacles in the completion of their study most especially during this pandemic.

There are a lot of potential researchers in the senior high school department of BINHS and this study focused on addressing the research needs of these teachers in the hope of increasing individual and institutional research productivity. This is an ideal time for opportunities in research as almost everything that is happening in the education sector is "new". Perhaps, majority of this teaching force could be primed further to venture into research if their research needs are addressed to further capacitate them to proceed to the next level.

## METHODOLOGY

The study utilized a descriptive research design. This design describes the characteristics of the population or phenomenon studied. In this study, a research needs assessment highlighted this research design. Quantitative methods involving descriptive and inferential approaches were employed to provide the answers to the research questions. Descriptive statistics provided the distribution across profile variables as well as described the assessed research needs of the teacher-respondents. Inferential statistics attempted to compare if a particular profile characteristic influences the respondents' research needs.

The population of the study was composed of 89 senior high school teachers of Biñan Integrated National High School. Total Population was deemed appropriate as the sampling technique to be utilized in this study. Total population sampling is a type of purposive sampling technique where one chooses to examine the entire population that has a particular set of characteristics. However, only 45 teachers were able to answer the survey questionnaire which accounts for only 50.6% of the expected participants.

The main instrument of the study was researcher-made. It is composed of two parts and was administered online via an appropriate platform. The first part collected information on the profile characteristics of the study participants in terms of age, sex, civil status, educational attainment, rank, area of specialization, and individual research productivity (research outputs, local or international presentations and publications).

The second part of the instrument assessed the research needs of the teacher respondents in terms of identifying the research problem (10 items), organizing a literature review (8 items), establishing the research methodology (6 items), interpreting and presenting the results (4 items), and drawing conclusions and recommendations and citing references (5 items).

Before the administration of the research instrument to the actual respondents of the

study, it was validated for face and content validity. It was also pilot tested to a group of 30 teachers not included as participants of the study. Internal consistency of research needs indicated excellent reliability for identifying the research problem ( $\text{Alpha}=0.942$ ), organizing a literature review ( $\text{Alpha}=0.974$ ), establishing the research methodology ( $\text{Alpha}=0.950$ ), interpreting and presenting the results ( $\text{Alpha}=0.943$ ), and drawing conclusions and recommendations and citing references ( $\text{Alpha}=0.966$ ). Overall internal consistency indicated excellent reliability ( $\text{Alpha}=0.987$ ) as well.

Upon establishing the instrument's reliability and validity, the research instrument was administered online to the respondents of the study. Key points in the instrument were clarified with the participants through a chosen online platform to ensure a full understanding of the purpose of the study. Each participant was allowed to accomplish the online survey questionnaire at his/her own pace within the data collection period. The researcher collected the responses for the survey questionnaires upon expiration of the data collection period and proceeded to data organization, analysis, and interpretation.

Data were analyzed and interpreted using Statistical Package for the Social Sciences (SPSS) version 26. Descriptive statistics included frequency and percentage distribution, weighted mean, and standard deviation. Inferential statistics made use of independent sample t-test and one-way analysis of variance. Results of the analysis were reported in graphical and/or tabular forms, where appropriate.

## RESULTS

The study assessed the research needs of 45 senior high school teachers of Biñan Integrated National High School. The profile distribution of the respondents revealed that 73.3% of the respondents are below 50 years old as teachers in their thirties represented the largest proportion (31.1%). The majority are female (77.8%) and 64.4% are married. Furthermore, there is only one with a doctorate degree while 55.6% have a Master's degree. In terms of rank, 75.6% of the teachers are ranked from Teacher 1 to Teacher 3. As for the area of specialization,

there is almost an even distribution of the respondents in English, Mathematics, Science, Social Science, and other specializations (PE and ICT).

In terms of research productivity, 91.1% of the respondents have had sufficient and completed training on research, however, most of these completed training have not translated much to research outputs. Only 20% have had 1 to 3 research outputs outside of their school thesis or dissertation, 20% have presented research locally, and only 6.7% have published locally.

Identifying the problem was assessed as "much needed" with a composite mean of 3.60. Foremost among these research needs in identifying the problem is "*identifying the research topic based on the issue/phenomenon derived from the problem*" and "*crafting the research paradigm or conceptual framework*" (both with a mean of 3.67).

Organizing the literature review was assessed as "much needed" as well, with a composite mean of 3.62. Foremost among these needs is "*conceptualizing the knowledge gaps that the research will aim to fill*" as this need indicated the highest mean of 3.69. Also, there are priority needs such as "*key issues which underlie the research to be undertaken*" and "*writing the literature review (paraphrasing and citation)*", both of which were assessed with a mean of 3.67.

Establishing the research methodology was also assessed as "much needed" with a composite mean of 3.63. Foremost among these needs is "*establishing the validity and reliability of the research instrument or intervention*" as this need indicated the highest mean of 3.73. Also, a priority need is "*performing statistical analysis on data gathered*" as indicated by a mean of 3.69.

Interpreting and presenting the results was assessed as "much needed" as well, with a composite mean of 3.54. Foremost among these needs is "*writing the discussions after the interpretation of the results of statistical analysis*" as this need indicated the highest mean of 3.64. Also, a priority need is "*interpreting results of statistical analysis*" as indicated by a mean of 3.60.

Drawing the conclusions and recommendations and citing references was also assessed as "much needed" with a composite mean of 3.60. Foremost among these needs is "*synthesizing the findings*" as this need indicated the highest mean of 3.67.

Comparing the research needs of the teachers in identifying the problem, there were no significant differences across gender ( $t= .464, p= .645$ ); across civil status ( $t= 1.477, p= .147$ ); across highest educational attainment ( $t= .682, p=.499$ ); across rank ( $t= .682, p= .669$ ); across age groups ( $F= 1.969, p= .134$ ); and across area of specialization ( $F= 1.041, p= .398$ ).

Comparing the research needs of the teachers in organizing the literature review, there were no significant differences across gender ( $t= -.127, p= .899$ ); across civil status ( $t= 1.477, p= .147$ ); across highest educational attainment ( $t= -.857, p=.397$ ); across rank ( $t= -.163, p= .871$ ); across age groups ( $F= 1.091, p= .364$ ); and across area of specialization ( $F= .906, p= .470$ ).

Comparing the research needs of the teachers in establishing the research methodology, there were no significant differences across gender ( $t= -.357, p= .723$ ); across civil status ( $t= 1.762, p= .085$ ); across highest educational attainment ( $t= 1.587, p=.121$ ); across rank ( $t= -.016, p= .987$ ); across age groups ( $F= 1.497, p= .230$ ); and across area of specialization ( $F= 2.035, p= .079$ ).

Comparing the research needs of the teachers in interpreting and presenting the results, there were no significant differences across gender ( $t= -.550, p= .585$ ); across civil status ( $t= 1.053, p= .298$ ); across highest educational attainment ( $t= .581, p=.565$ ); across rank ( $t= .134, p= .894$ ); across age groups ( $F= 1.249, p= .304$ ); and across area of specialization ( $F= 2.023, p= .110$ ).

Comparing the research needs of the teachers in drawing the conclusions and recommendations and citing references, there were no significant differences across gender ( $t= -.701, p= .487$ ); across highest educational attainment ( $t= 1.096, p=.281$ ); across rank ( $t= .075, p= .940$ ); across age groups ( $F= 2.819, p= .051$ ); and across area

of specialization ( $F= 2.221$ ,  $p= .084$ ). A significant difference, however, was established across civil status ( $t= 2.198$ ,  $p= .035$ ) where teachers who are single have a significantly higher need compared to teachers who are married.

## DISCUSSION

The starting point of crafting a research undertaking is the main problem for these teachers. Logically, if one does not seem to know where and how to start, it would be difficult to proceed at all. According to Abarquez and Palbacal (2013) and Morales et. al (2016), they found out that teacher-researchers need more skills and background knowledge in identifying issues and problems to be investigated by research.

The key aspects of organizing a literature review are also the main concerns of the teachers. Being able to conceptualize and generalize from all the literature used as a reference for a study is essential to providing the researcher the connection of these references to the study to be or being conducted. Morales et al. (2016), in a study involving science and mathematics teachers from government schools, revealed that the respondents had moderate difficulty in searching for literature and establishing a coherent literature review.

It would seem that the priority needs of the respondents for establishing the research methodology are centered on statistical applications. As most researchers would rather avail of the services of a statistician, these respondents would prefer that they be equipped with knowledge in statistics. This finding is congruent with the study of Morales et al. (2016) as teacher respondents indicated low mean scores when it comes to applications of statistics in research.

Teachers with a Master's degree are those that have at least some research productivity since this is part of their job description in the academe. Young et al. (2010, in Ulla, Barerra & Acomponado, 2017) revealed in their study revealed that that only a few of the teacher-respondents actually do research. They also stated that only those who have finished or at least have earned Master's degree credits were able to conduct

research as part of their requirement in the profession.

However, most of the teachers in this study have had sufficient completed training on research, however, most of these completed training have not translated much to research outputs as well as local or international presentations and publications. This lack of research productivity is reflected in the findings as the teachers assessed that the pedagogical approaches to completing a research undertaking are much needed.

Insufficient research training, lack of research skills, and lack of research knowledge are just some of the challenges teachers encounter towards taking the next step in a research undertaking (Ellis & Loughland, 2016, Vásquez, 2017, Biruk, 2013, and Norasmah & Chia, 2016).

The lack of involvement of teachers to engage in research is still evident. Some venture into crafting a proposal but get lost in translation as time passes by. As a result, the research initiative does not go into completion. However, most foretelling is not being able to engage one's self in research due to reasons only the would-be teacher-researcher has kept to him/herself.

Glanz (as cited in Morales et al., 2016) recognized that the majority of teachers often fear getting involved in research, and they do not see how research can benefit their work because they lack the knowledge and training to see these connections. Thus, the teachers' beliefs on research may affect their capability and engagement to such.

In a meta-analysis performed by Matus, Walker, and Mikan (2018), six studies defined research capacity as the ability to engage in, perform or carry out quality research. Building local research capability is an enduring challenge that confronts most educational institutions (Lee and Kuzhabekova, 2019). This pandemic has not yet been viewed as a pool of research opportunities.

Developmental programs for professional growth, especially in the field of research, may only accomplish its goals if it is well-planned, highlighting the needs and the current state of teachers in connection with

their roles in educational reform. In effect, designing teacher development programs would need, as inputs, teachers' conceptions of research for education quality (Morales et al., 2016). Teachers should conduct research relative to the solutions of the problems in their classrooms, as well as the school itself, which will, in turn, improve the educational system of the country.

Based on these findings, it is recommended that a research capability enhancement program be provided to address the assessed research needs of the teachers. Under this program, the following areas shall be facilitated through a series of training workshops that aims to produce research proposals at the end of the training workshop series:

1. *The Research Process and Ethics in Research* – An introductory training that will orient the teachers on the research process. It aims to provide familiarization with the basics of research and the importance of ethics before the conduct of research. The expected output shall be specific concerns of teachers before embarking on a research undertaking.
2. *Identifying the Research Problem* – This training focuses on identifying the research topic based on the issue/phenomenon derived from the problem and crafting the research paradigm or conceptual framework. It aims to provide the teachers the starting point of a research undertaking and construct the framework that will serve as the blueprint of the study. The expected output shall be the framework of the proposed study that will include the research objectives and questions.
3. *Organizing the Literature Review* – This training focuses on the rudimentary procedure of searching for related literature, proper citation of sources, and synthesizing information from the literature gathered. It aims to aid the teachers in conceptualizing the knowledge gaps that the research will aim to fill. The expected output shall be the literature review section of their research proposal.
4. *Establishing the Research Methodology* – This training focuses on the major parts of the research methodology: sampling design, instrumentation, and statistical

approaches and applications. It aims to provide the teachers with in-depth knowledge on data management involving collection and processing techniques. The expected output is the methodology section of the teachers' research proposal.

5. *Interpreting and Presenting the Result* – This training shall take place after the implementation of research protocols and focuses on the presentation of the results either in tabular or graphical forms and writing of the discussion after the interpretation of the results of the analysis. It aims to provide the teachers with the appropriate skills in relating gathered literature to affirm the results of the study. The expected output is the results and discussion section of the teachers' ongoing study.
6. *Drawing Conclusions and Recommendations and Citing References* – This training shall be the culminating activity of the workshop series and focuses on synthesizing the findings of the study and an update of citation formats (APA or MLA). It aims to aid the teachers in providing additional value to the findings that are translated into appropriate conclusions and recommendations. The expected output is the conclusion and recommendation section as well as the reference section of the teachers' completed study.

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