

Research Capabilities of Master Teachers of the Division of City of Bogo

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Abstract — The Department of Education (DepEd) promotes the utilization of educational research to better understand and advance basic education in the country with its research agenda revolves around four themes. This study determined the Research Capabilities of Master Teachers (MTs) of the Division of City of Bogo, Philippines, during the School Year 2020-2021. The respondents of the study were the fifty (50) public secondary and elementary school master teachers in the different public schools. The data gathered were organized and processed through the Statistical Package for Social Sciences (SPSS). The weighted mean was used to assess the Master Teacher research capability skills towards educational research. The implication is for the school heads, policy makers, and schools' officials to consider the findings of this study and address the needs of these master teachers, in order to create a community of teacher-researchers.

Keywords — *Public Master Teachers, Research Capabilities*

I. Introduction

In education, extensive research has driven substantial advancements in developing and reshaping curricula, supporting the learning process for students facing challenges, gaining insights into individual differences and preferences, and customizing teaching methods to suit the unique needs of each learner. As a result, many of these entities are actively developing research agendas, acknowledging the potential of research to offer solutions to the current issues they face. (Basu, Mayurakshi, October 2020)

The Department of Education (DepEd), as a government agency, should take the initiative to address teaching and learning problems. The agency fully supports the Basic Education Research Agenda (BERA), which guides the Department and its partners in carrying out education research and utilizing its results to inform the Department's planning, policy-making, and program development that aligns with its vision, mission, and core values. With the growing need for high-quality research to keep up with industry trends, it is essential to first establish an understanding of the needs among researchers in order to enhance their capacity and improve practices in generating theoretical knowledge. It is crucial to support the exploration of issues and to stimulate concern. (Agatep J.L & Villalobos R.N., 2020)

Furthermore, the Department of Education encourages teaching and non-teaching personnel to conduct research studies to better understand and advance basic education in the country with its research agenda revolves around four 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. (DepEd Order No. 43, s. 2015).

To achieve excellence, educational institutions must focus on enhancing not just their educators' teaching abilities but also their research capacity. As noted by Tatto M.T. (2021), Educators and teacher trainers must seek to deepen their grasp of diverse approaches and methodologies, including quantitative and evaluation research methods. This will greatly enrich their examination and analysis of their own teaching practices and those of their peers. It is crucial for different research methodologies to coexist and complement each other, rather than being viewed as mutually exclusive. While the advocacy for expanded methodologies in practitioner research in education is not new, the increasing dominance of econometric approaches in education underscores the urgency of these calls. Therefore, teachers' research skills play a crucial role in nurturing and sustaining the creative potential of every student and can further enrich their own teaching through creativity.

Furthermore, as outlined in Article XIV of the 1987 Philippine Constitution, it is the responsibility of the government to create, sustain, and protect a comprehensive education system. This includes setting educational standards, allocating resources, and ensuring equal education opportunities. Effectively carrying out this mandate begins with establishing a solid foundation in primary education. Educators' steadfast dedication and hard work form the cornerstone of our education system. In addition, in 1978, the Philippines implemented Master Teacher positions corresponding to the salary grades of principals and assistant principals at four levels. This structure offers educators two career paths: school administration and classroom teaching. Master teachers, esteemed and highly respected educators, are known for their extensive knowledge of curriculum development, professional development, and mentoring. They are not just leaders in their fields, but also in driving educational innovation through their research. This academic research, a crucial aspect of providing quality education, is not just a theoretical exercise. It is a practical tool that shapes theories, cultivates new ideas and practices, and develops effective instructional materials.

Furthermore, the Results-Based Performance Management System (RPMS) serves as a comprehensive framework that delineates the roles and responsibilities of a Master Teacher (MT), encompassing their function as a researcher. According to the RPMS, it is incumbent upon the MT to undertake thorough investigations and action research on instructional matters, completing a minimum of one research project annually. With the incorporation of RPMS and establishing a dedicated Planning and Research Section in each school division Office, research endeavors are slated to receive heightened emphasis. This is a testament to our commitment to fostering a culture of research and innovation within the education sphere, with MTs leading the way. However, the Research Capability Training Workshop for Master Teachers, conducted by Research Experts from a prestigious university and facilitated by Schools and Governance Division (SGOD)

Personnel in 2019, revealed that 70% of the 50 Master Teachers in the Schools Division of Bogo City encountered challenges in formulating an action research proposal, which was a requisite following the training they have attended.

This study was initiated to identify the research capabilities of master teachers (MTs) conducting research. This paper examined the internal factors such as research capabilities to understand the challenges MTs face in conducting research. This paper aimed in addressing this gap by providing additional literature. The implications of this study are for school leaders, policymakers, and officials to consider the findings and support the needs of master teachers to foster a community of teacher-researchers. Therefore, a comprehensive understanding of MTs' research capabilities would offer valuable insights into why only a few MTs engage in action research despite it being part of their mandate.

Literature Review

Introduction

In the Philippines, the Department of Education plays a crucial role in ensuring the quality of education in the country. Master Teachers, as experienced educators, are expected to possess strong research capabilities that can contribute to the improvement of teaching and learning practices. This literature review aims to provide an in-depth analysis of the existing research findings related to the research capabilities of Master Teachers in the Department of Education, Philippines.

Digital Teaching and Learning Technologies

Amidst the global digital transformation of educational institutions, digital technology has emerged as a significant area of interest among scholars. Such technologies". In today's rapidly evolving educational landscape, digital technology has captured the attention of scholars worldwide. This innovative technology has revolutionized the way we learn and has proven to significantly enhance student performance while making teaching and learning more effective." It have played an instrumental role in enhancing learner performance and improving the effectiveness of teaching and learning by Wang, C., et.al., (2024).

As cited by Wohlfart, O., & Wagner, I. (2022), teachers play a vital role in the digital transformation of education. It's essential to acknowledge that their involvement in digitizing education is a multifaceted, comprehensive process. While teachers can lead the charge in digitalization, the COVID-19 pandemic and the transition to remote teaching and learning have also rendered teachers reliant on digital technologies and the accompanying educational standards.

Javier (2022) explored the practices of Filipino public high school teachers on digital teaching and learning technologies during the COVID-19 pandemic. The study highlighted the increasing reliance on digital tools for education delivery. This finding suggests that Master

Teachers need to enhance their research capabilities to effectively integrate digital technologies into their teaching practices. It also points to the need for research on the impact of digital tools on student learning outcomes, which could be a potential future research direction for Master Teachers.

Therefore research in the field of education plays a crucial role in developing evidence-based teaching practices and enhancing the overall quality of education. According to Ilhan N. (2021), educational research encompasses three primary areas: (i) basic/fundamental research, which focuses on generating knowledge on various scientific topics; (ii) applied research, which seeks to identify and develop solutions to common issues within a scientific field, and (iii) evaluation research, which assesses the effectiveness of existing practices.

Action Research and Professional Development

The action research approach has been widely recognized as a valuable tool for professional development in the field of education. It allows educators to systematically investigate and reflect on their teaching practices. However, there is a lack of specific research findings related to the application of action research specifically to Master Teachers in the Department of Education, Philippines. This highlights a knowledge gap that needs to be addressed through future research endeavors.

As stated by Caingcoy, M. (2020), in developing research capability involves consistently applying acquired knowledge and skills to generate research output and innovation. Advancing in this area requires careful consideration of individuals' motivation, attitudes, and the skills necessary for undertaking the systematic and meticulous research process."

With this premise as cited by Abasolo E., et.al. (2021) teachers are supervised by master teachers. When teachers are not well supervised, their instructional effectiveness may be adversely affected and their instructional goals may not be well realized. First, master teachers need to critically reflect on their ability to perform their duties and responsibilities in the context of K-12 education.

Furthermore, Master teachers are expected to have more experience in curriculum development, professional development, and mentoring than a traditional teacher; they serve as a role model for all other instructional staff. (Basilio and Bueno, 2019)

In addition, master teachers must critically reflect on their capability to perform their duties and responsibilities in the context of K to 12 Education. This pushed the researchers to conduct the study to determine the level of ability of master teachers and the challenges they encountered during the pandemic. The findings of this study underscore the necessity of a development plan that addresses the areas where master teachers need coaching and mentoring in response to the changes and challenges of the modern world.(Abasolo, et. al, 2021)

As mentioned by Agatep, J. L. E., & Villalobos, R. N. (2020)., in their research that minimal involvement of faculty or teachers in research activities can be attributed to the lack of comprehensive training during their graduate studies. This lack of training hinders their ability to consistently produce research. Additionally, there is an increasing demand for them to become active contributors of knowledge for the future.

Therefore, teachers need to improve their research capabilities to produce better research outputs. However, they cannot do it alone. The agency and its partners should collaborate to help teachers acquire and develop knowledge, skills, values, and positive attitudes. This will enable them to add value to their research work and fully embrace the policies.(Caingcoy, 2020)

Knowledge Gaps and Future Research Directions

Based on the existing research findings, several knowledge gaps and potential future research directions can be identified. Firstly, there is a need for in-depth studies that specifically focus on the research capabilities of Master Teachers within the context of the Philippines. This could involve examining the specific skills and competencies that are essential for Master Teachers to conduct high-quality research that directly impacts teaching and learning outcomes.

Secondly, future research could explore the effectiveness of peer support and collaborative research efforts among Master Teachers. Investigating the impact of peer networks on research capabilities and the adoption of best practices in education could provide valuable insights for professional development initiatives.

Finally, there is a need for research that evaluates the integration of digital teaching and learning technologies into the research practices of Master Teachers. Understanding how digital tools can be leveraged to enhance research capabilities and contribute to educational improvement is essential in the current technological landscape.

In conclusion, this literature review has highlighted the importance of research capabilities for Master Teachers in the Department of Education, Philippines. By integrating and synthesizing the provided research findings, it has identified knowledge gaps and suggested potential future research directions to further enhance the research capabilities of Master Teachers and contribute to the advancement of education in the Philippines.

II. Methodology

The researcher employed a descriptive evaluative research method, using a survey form to evaluate the research proficiency of master teachers in public secondary and elementary schools within the Division of City of Bogó, Philippines. The study involved fifty (50) public secondary and elementary school master teachers from various schools in the Division of City of Bogó, selected through purposive sampling as determined by the researcher.

This study utilized a survey questionnaire as the primary tool for data collection. The questionnaire, designed to assess research skills, was adapted from Agatep & Villalobos (2020) research instrument. The researcher used the survey questionnaire to gather the necessary data. As the instruments were adapted from established sources by individuals with Doctorate Degrees, considered authorities and experts in the field, and had been previously validated through their studies and others, there was no apparent need for further validation. However, the researcher sought the input of local experts to ensure that the questionnaires were suitable for the intended participants of the study. Subsequently, after careful review and finalization, the questionnaires were administered. The data gathered were organized and processed through the Statistical Package for Social Sciences (SPSS). As one of the rules followed in the use of the software, the formula of the statistical tools used were not reflected anymore since the computer did not follow the steps in the manual computation. The frequency and percentage distribution were used to describe the profile of the respondents. The weighted mean was used to assess the Master Teacher research capability skills towards educational research.

III. Results and Discussion

The Master Teachers surveyed were predominantly in the middle age range, with a majority being female (92%) and a minority being male (8%). Around 42% were married, and 72% had obtained MA/MS units. Moreover, 80% had participated in research-related training or conferences at the division level. Basilio et al. (2019) found that while Master Teachers highly value training in educational research, they only moderately apply research findings to real-life contexts. They hold research in high regard to improve their teaching skills and view the time, effort, and resources dedicated to learning about research findings as crucial for fostering positive attitudes toward research.

Table I. Research Capabilities of Master Teachers in writing an Action/Basic Research Proposals

In Writing an Action/Basic Research Proposal	Mean	Verbal Interpretation
1. Writing Rationale and Introduction	3.55	Moderately Capable
2. Writing Significance of the Study	3.67	Moderately Capable
3. Writing the Scope and Delimitation	3.70	Moderately Capable
4. Writing the Interventions, Innovations and Strategies	3.24	Less Capable
5. Writing the Conceptual Framework	3.48	Moderately Capable
6. Writing the Review of Literature and Studies	3.59	Moderately Capable
7. Writing the Expected Output of the Study & Action Plan	3.69	Moderately Capable
8. Writing the Research Methodology	3.72	Moderately Capable
9. Writing the Synthesis of the study	3.63	Moderately Capable
10. Construction of the Instrument	3.67	Moderately Capable
11. Writing the Bibliography or References	3.61	Moderately Capable
12. Applying the APA Format	3.43	Moderately Capable

The data presented in Table I indicates that master teachers exhibit the highest level of research capability in writing methodology, with a mean rating of 3.72, indicating a moderate level of capability. Conversely, their capability in writing interventions, innovations, and strategies is rated the lowest at 3.24, indicating a less capable level. The findings suggest that while master teachers are moderately capable of writing different parts of research proposals, they struggle with crafting interventions, innovations, and strategies that address specific learner needs. This highlights the need for training and workshops to enhance their capabilities in this area. Furthermore, documenting these innovations can lead to a more significant impact on student learning and engagement, and the dissemination of valuable research to educators worldwide.

Table II. Research Capabilities of Master Teachers in writing complete Research Paper

In Writing an Action/Basic Research Proposal	Mean	Verbal Interpretation
1. Writing an Abstract	3.52	Moderately Capable
2. Writing an Introduction	3.66	Moderately Capable
3. Writing the Objectives	3.74	Moderately Capable
4. Writing the Research Methodology	3.54	Less Capable
5. Writing the Implications of the Study	3.60	Moderately Capable
6. Writing the Action Plan	3.31	Less Capable
7. Writing Results	3.64	Moderately Capable
8. Writing Discussions	3.53	Moderately Capable
9. Writing Conclusions	3.50	Moderately Capable
10. Writing Recommendations	3.68	Moderately Capable

In Table II, the analysis of the research capabilities of master teachers in public schools in the Division of the City of Bogo reveals exciting findings. When it comes to writing objectives, the master teachers received the highest mean rating of 3.74, which indicates a moderate level of capability. However, their ability to write action plans received the lowest mean rating of 3.31, indicating a lower level of capability. Action plans are crucial for driving continuous improvement in the teaching and learning process. They provide a structure for educators to set clear objectives, strategies, and metrics for success, allowing them to monitor progress, evaluate the effectiveness of their approach, and make necessary adjustments. Teachers need relevant, consistent, genuine experiences directly related to their daily work. As teachers apply their content knowledge and understand their students and the educational environment, their teaching skills naturally develop (Manfra, 2019).

The statistical analysis reveals insufficient evidence to reject the null hypothesis, indicating no significant difference in the research capabilities of public school master teachers in the Division of City of Bogo when writing different parts of action/basic research proposals compared to completed research. The probability values, which exceed the 0.05 significance level, support this conclusion. Furthermore, the probability values associated with age, sex, civil status, and

research seminars attended are less than 0.05, leading to the rejection of the null hypothesis. This implies that the research capabilities of Master Teachers in the Division of the City of Bogo are not influenced by these factors, including age, sex, civil status, highest educational attainment, or research training and seminars attended.

IV. Conclusion

The public-school master teachers have demonstrated moderate research capabilities in various aspects of writing, including different parts of proposals, completed action, and basic research. However, they must be more proficient and improve writing interventions, innovations, and strategies within action/basic research proposals. Additionally, they have received a lower capability rating in writing the research methodology for completed action/basic research. Furthermore, the research capabilities of Master Teachers in the Division of the City of Bogo appear unaffected by factors such as age, sex, civil status, highest educational attainment, or participation in research training and seminars. It is imperative to establish a comprehensive and well-organized research training program promptly. This program will cover a range of levels, offering in-depth lectures, practical hands-on workshops, and thorough guidance on writing research innovations, strategies, and interventions. It will also explore how to write research methodology in completed/proposal for action and basic search research. A robust system should also be implemented to consistently monitor the program's effectiveness, ensuring ongoing improvement and relevance.

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