RESEARCH COMPETENCIES AND ATTITUDE OF MASTER TEACHERS IN SAMAR DIVISION

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APPROVAL SHEET

In partial fulfilment of the requirements for the degree, **DOCTOR OF PHILOSOPHY**, this dissertation entitled **"RESEARCH COMPETENCIES AND ATTITUDE OF MASTER TEACHERS IN SAMAR DIVISION"** has been prepared and submitted by **MICHAEL PACANAN MABULAC** who, having passed the comprehensive examination and pre-oral defense, is hereby recommended for final oral examination.

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DEDICATION

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ABSTRACT

The main purpose of this was to determine the research competencies and attitudes of master teachers in Samar Division during the school year 2019-2020 as the basis of an intervention scheme. This study utilized mixed method design which emphasizes quantitative analysis followed by interviews for qualitative measures. Mixed method design is a type of research design in which qualitative and quantitative approaches are used in types of questions, research methods, data collection and analysis procedures, and inferences. Master teachers' attitude was significant to their educational attainment being baccalaureate and master's degree holders with 0.42. And, Master teacher's attitude was significant to level 2 and level 3 accredited schools in terms of schools accreditation with 0.16. Their individual innovativeness was significant to the attitude with 0.05, specifically significant to early majority and late majority. Majority of the master teachers were high in early majority on their individual innovativeness. And, Master teachers are above-average in practical research skills, problem-solving, thinking and communication skills, and personal attitude and professional ethics skills. They were excellent in dissemination skills and average in roles and function skills. The DepEd Samar Division shall oblige master teachers regardless of age and being non-science and technology majors to conduct research. Also, the school authorities shall give incentive packages to research-related activities of MTs to include training in research writing and publications.

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Chapter 1

THE PROBLEM AND ITS SETTING

Introduction

Research and Development plays a critical role in the innovation process (Rosso, 2014). It is essentially an investment in technology and future capabilities which is transformed into new products, processes, and services. Any company that intends to stay innovative and competitive must work actively at creating an innovative culture for their employees. This involves much more than forming a mission statement and inventing a set of rules to follow.

Innovation is reshaping our society and this affects all aspects of our world, from agriculture to transportation to how we communicate with one another (Danziger, 2004). Challenging tasks can now be automated while artificial intelligence is becoming a collaborator across industries as varied as medicine, transportation, and fashion. Technology is now firmly embedded throughout our everyday activities, sometimes to a degree where digital becomes invisible, blurring the lines with the physical world.

The technological revolution we live in today, and the innovations that it has brought about are only limited by our imagination and the degree of social acceptance as to what is possible. Other technologies have also seen exponential advances, including advancements in gadgets as source of information and helping us move toward a seamless world, where products and services are

available to us if and when we need them, and where technology has become invisible in—and indivisible from—people's daily lives.

In the education sector, some educators are starting to use technological advancement to deliver quality educations to the clientele, exploring the broad impact of innovation on schools to help ensure that technology innovation furthers societal growth. Involving education sector in the innovative process, each employee should be encouraged to put forward their thoughts and ideas, whether they pertain to new concepts or ways to improve teaching and learning and functionality.

The human resource plays an increasingly strategic role in innovation by managing and measuring performance that reliably helps school leaders and master teachers to maintain highly-trained teachers which workforce benefits both employee and employer (Diaz-Fernandez, Bornay-Barrachina, & Lopez-Cabrales, 2015). The competencies of the human resources are used as a framework to help focus employees' behavior on things that matter most to an organization and help drive success. They can provide a common way to harmonize, select, and develop talent. For employees, competencies offer a description of the standards of excellence for current roles and potential future roles – "great" performance looks like.

The Governance of Basic Education Act of 2001 (R.A. 9155) mandates that the Department of Education (DepEd) enact policies and mechanisms through which the delivery of quality basic education may be continuously improved.

Chapter 1, Section 7 (5) includes among the responsibilities of DepEd across all governance levels the undertaking of "educational research and studies" that will serve as one of the bases for necessary reforms and policy development.

The importance of research in the Philippine educational system was already well emphasized not only in the higher education institutions (HEIs), but also in the basic education institutions. Currently, the DepEd has institutionalized the conduct of research. In fact, master teachers, school heads, and division and district supervisors are required to conduct action research; while teachers with Teacher 1, 2, and 3 positions and other DepEd personnel are encouraged to conduct the same. It only showed that research becomes a mandate among DepEd personnel and is reflected in the annual evaluation. Moreover, the conduct of research is given premium in a way that it is one of the criteria considered in and for promotion.

The improvement of research and development in the basic education are needed so that the standards for K-12 science education and the evidence-based decisions can be made about how to improve them. There is a need for ongoing research on science teaching and learning, particularly on learning progressions for the core ideas detailed through to students. It is a need for research on the impacts and implementation of the next generation of standards. Research needs to consider the three-level system - school and classroom, professional development targeted at administrators and teachers' knowledge and practices, and designing and testing of learning progressions.

Through research and development in basic education developed teachers that have paramount importance toward the realization of our educational goals, the primary and foremost concern of all teachers is by educating the students by providing them quality educational experience. Students need to be guided by teachers who will dispense them knowledge and opportunities to become valuable assets of the nation toward its economic development which serves as goals of education in our country. Thus, master teachers have become one of the most important avenues for preparing quality human capital especially when students enter tertiary level and continue to improve access for all.

The DepEd continues to promote and strengthen the culture of research in basic education through the establishment of Research Management Guidelines (RMG) provided in DepEd Order No. 16, series of 2017. The policy aims to provide guidance in managing research initiatives in the national, regional, schools division, and school levels. It also improves support mechanism for research such as funding, partnership, and capacity building. In addition, it improves the fund-sourcing mechanism and reinforces the link of research to education processes through research dissemination, utilization, and advocacy.

In the DepEd Order No. 29, series of 2002, the merit selection plan of the DepEd for master teachers clearly states the policy that strictly adheres to the principles of competence in performing their duties and responsibilities of the position. One of the master teacher duties and responsibilities is the initiation and implementation of research outcomes.

For the past years, since research was emphasized in DepEd, only small number of master teachers were actively involved. The records in the Division Research Office of Samar, school year 2018-2019, show that 37 (28.00 percent) teachers and instructional leaders out of 128 were conducting research. This implies a very minimal participation rate despite the emphasis and encouragement of DepEd to conduct research. No tangible improvements in the number of researches conducted were absorbed. Even those who have the mandate to conduct research such as the master teachers, there is indication of the possible existence of a problem on master teachers' competence to conduct research.

Master teachers' duties and obligations are not only for teaching and making students learn, but they must have strong value of training in educational research, and moderately apply research findings to real-life context. They have high regards relative to the value of doing research to become better educators. Time, efforts, and resources in learning about research findings were essential elements to create positive attitudes toward research.

The master teachers require collaboration and effort from both the teachers and the institution so that the DepEd could develop a comprehensive research capability enhancement program to help the master teachers raise their level of capability. Such effort must be focused on the driving forces that would help master teachers improve their research capabilities such as attitude toward research, research knowledge, and a supportive institution.

Statement of the Problem

The main purpose of this study was to determine the research competencies and attitudes of master teachers in Samar Division during the school year 2019-2020 as basis of an intervention scheme.

Specifically, the study sought answers to the following questions:

1. What is the profile of the master teacher-respondents in the Division of Samar in terms of:

    1.1 age and sex;

    1.2 educational background;

        1.2.1 specialization; and

        1.2.2 school accreditation level;

    1.3 rank/position;

    1.4 latest performance rating;

    1.5 length of service;

    1.6 research-related trainings attended;

        1.6.1 field of training program;

        1.6.2 type of training program, and

        1.6.3 period of the training program duration;

    1.7 research undertakings, and

        1.7.1 title of the research conducted;

        1.7.2 number of research conducted;

1.7.3 role of the respondents on the research conducted, and

1.7.4 funding of the research conducted;

1.7.4.1 amount of fund on the research conducted;

1.7.4.2 source of fund on the research conducted, and

1.7.4.3 duration of fund on the research conducted;

1.8 individual innovativeness?

2. What is the level of research competencies of the respondents in terms of:

2.1 practical research skills;

2.2 problem-solving, thinking and communication skills;

2.3 personal attitudes and professional ethics;

2.4 dissemination; and

2.5 roles and functions?

3. Are there significant differences in the level of research competencies of the respondents according to their prolife?

4. What are the attitudes of respondents with regard to doing research?

5. Are there significant differences in the attitude of the respondents with regard to doing action research according to their profile?

6. Is there significant relationship between the respondents' level of research competencies and their attitude with regard to doing action research?

7. What are the challenges encountered by the respondents in doing research?

Hypotheses

The following were the hypotheses tested in this study.

1. There are no significant differences in the level of research competencies of the master teacher-respondents according to their profile.

2. There are no significant differences in the attitude of the respondents with regard to doing action research according to their profile.

3. There is no significant relationship between the respondents' level of research competencies and their attitude with regard to doing action research.

Theoretical Framework

This study was anchored on the different theories such as Research Competencies Framework, Individual Innovativeness, Behavioral Theory, Disposition Theory, and Motivational Theory.

The Research Competencies Framework (Gray, 2007) describes the competencies (knowledge, skills, and learning outcomes) required in the different aspects of research, listed the suggested learning and assessment methods relevant to each competency, listed the training materials and references relevant to the competencies, demonstrated to the researchers who have an ongoing commitment to the development of evidence-informed research, and developed different aspects of application of the competencies.

Individual Innovativeness (Hurt, Joseph, & Cook, 2013) is an idea, practice, or object that is perceived as new by individual or other units of adaptation (like

an organization). Innovativeness has something to do with how early, in the process of adaptation of new ideas, practices, etc., that the individual is likely to accept a change. The individual innovativeness scale was designed to measure individual's orientations toward change.

Another theory that served as basis in this study was Behavioral Theory (Pasick, Burke, Barker et al., 2009) which is a learning theory that only focuses on objectively observable behaviors and learning as nothing more than the acquisition of new behavior based on environmental conditions. The Behavioral Theory constructs, most often, uses studies that perceived benefit, susceptibility, self-efficacy, intention, and subjective norms.

Disposition Theory must have the dispositions to acquire the knowledge base and skills to design and implement effective programs for the teachers. Educators and policy makers must engage in a concerted effort to reform public education in the organization. Other teachers must bridge by a reform agendum that integrates their experiences into the official school curriculum. Reformers must gain an understanding of the complex social, cultural, and economic dynamics of transnational teachers by listening to those individuals who have the pulse of transnational teachers.

Motivational Theory proposes that the individual's specific needs are acquired over time and are shaped by one's life experiences. This further explores the four training needs assessment research and data gathering methods: survey questionnaires, individual interviews, focus groups, and on-site observations. A

teacher's motivation and effectiveness in doing research are influenced by his training needs.

One motivation is the employees' development that prefers to function in environments that provide a challenge, offer new learning opportunities, significantly contribute to the organization's success, offer opportunities for advancement and personal development based on success, and demonstrate interest in a particular area (Ball, 2012).

The aforementioned principles and theories in conducting research provided the researcher a concrete framework in establishing relation to the study undertaken.

Conceptual Framework

Figure 1 illustrates the schematic diagram and conceptual framework of the study. It portrays the demographic profile of the respondents such as age and sex, educational attainment in terms of specialization and school accreditation level, rank/position, latest performance rating, length of service, research-related trainings attended in terms of field of training program, type of training program, and period of the training program duration and research undertakings in terms of title of the research conducted, number of research conducted and role of the respondents on the research conducted, funding of the research conducted, amount of fund on the research conducted, source of fund on the research

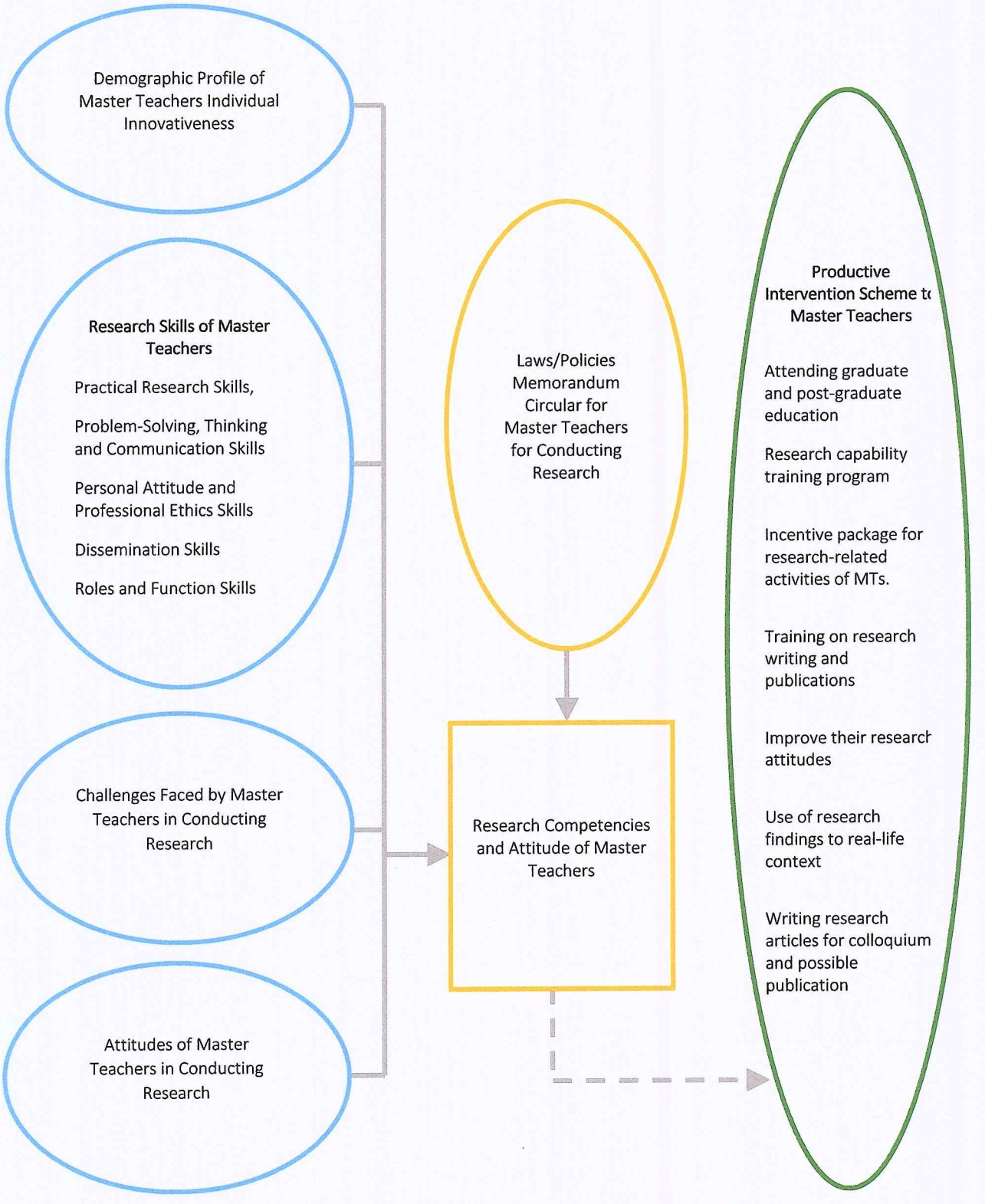

Figure 1. Conceptual Framework of the Study

conducted, and duration of fund on the research conducted, and individual innovativeness.

The said figure also depicts the research skills of the respondents in terms of practical research skills, problem-solving, thinking and communication skills, personal attitudes and professional ethics, dissemination, and roles and functions.

Also, taken into consideration are the attitude of the respondents in conducting research and the challenges they face in conducting an action research. The laws/policies and memorandum circular for master teachers to conduct an action research are basis to which they must conduct research works.

The findings of the study were the basis to develop an intervention scheme in research that could help master teachers in the Division of Samar gain the necessary competencies in conducting researches.

Significance of the Study

This study would serve as a basis for an intervention scheme in enhancing research skills of master teachers in the Division of Samar. This is significant to all master teachers and to the future researchers.

Master Teachers. As the center of this study, the master teachers would gain insights on their strength and weaknesses in conducting research. It could pave way in identifying ways and means to improve their competence. The intervention scheme that would be designed as a result of this study would help

them strengthen their skills and competence to conduct research, thereby, improving the quality of instruction in the classroom.

Future Researchers. This study would give future researchers insights with regard to the present study and would serve as a seminal study on the subject.

Scope and Delimitation

This study determined the level of research competencies and attitudes of master teachers toward doing research.

The research competencies included different skills such as practical research skills which could develop, maintain, promote, and show awareness of the vision, culture, and strategic direction of research, and the development of methods used within the DepEd.

Problem-solving and thinking and communication skills could provide framework to enable continuous improvement and evaluation of research standards and methods used to improve the qualities of research in the DepEd.

Personal attitudes and professional ethics skills could contribute to the development, delivery, and evaluation of research, in partnership and alone, to meet the needs of fellow professionals, stakeholders, and the community.

Dissemination skills could contribute to the development, delivery, and evaluation of the organization - DepEd - in partnership and alone, to meet the needs of fellow professionals, stakeholders, and the community.

Lastly, roles and function could manage and evaluate systems and resources to provide efficient and ongoing support to the organization which is the DepEd.

A dry run for survey questionnaires and focused group discussion were conducted by the researcher among the 33 master teachers in Samar National School (SNS), Catbalogan City last August 8, 2019.

Moreover, master teachers from 82 secondary schools in the Division of Samar were involved in the study. Hence, a total of 128 master teachers were included, and the data gathering process occurred between August 14 and September 5, 2019.

The location of the 82 secondary schools in Samar Division is reflected in Figure 2.

This study was conducted during the school year 2019-2020.

Definition of Terms

The terminologies used in this study are herein conceptually and/or operationally defined to provide a better understanding of the study.

Attitude toward Research. This refers to an individual's philosophical position with reference to research. This further refers to the mindset of the master teacher and value commitment that presumably has a strong bearing on an individual toward fulfilling the duties, particularly in undertaking research.

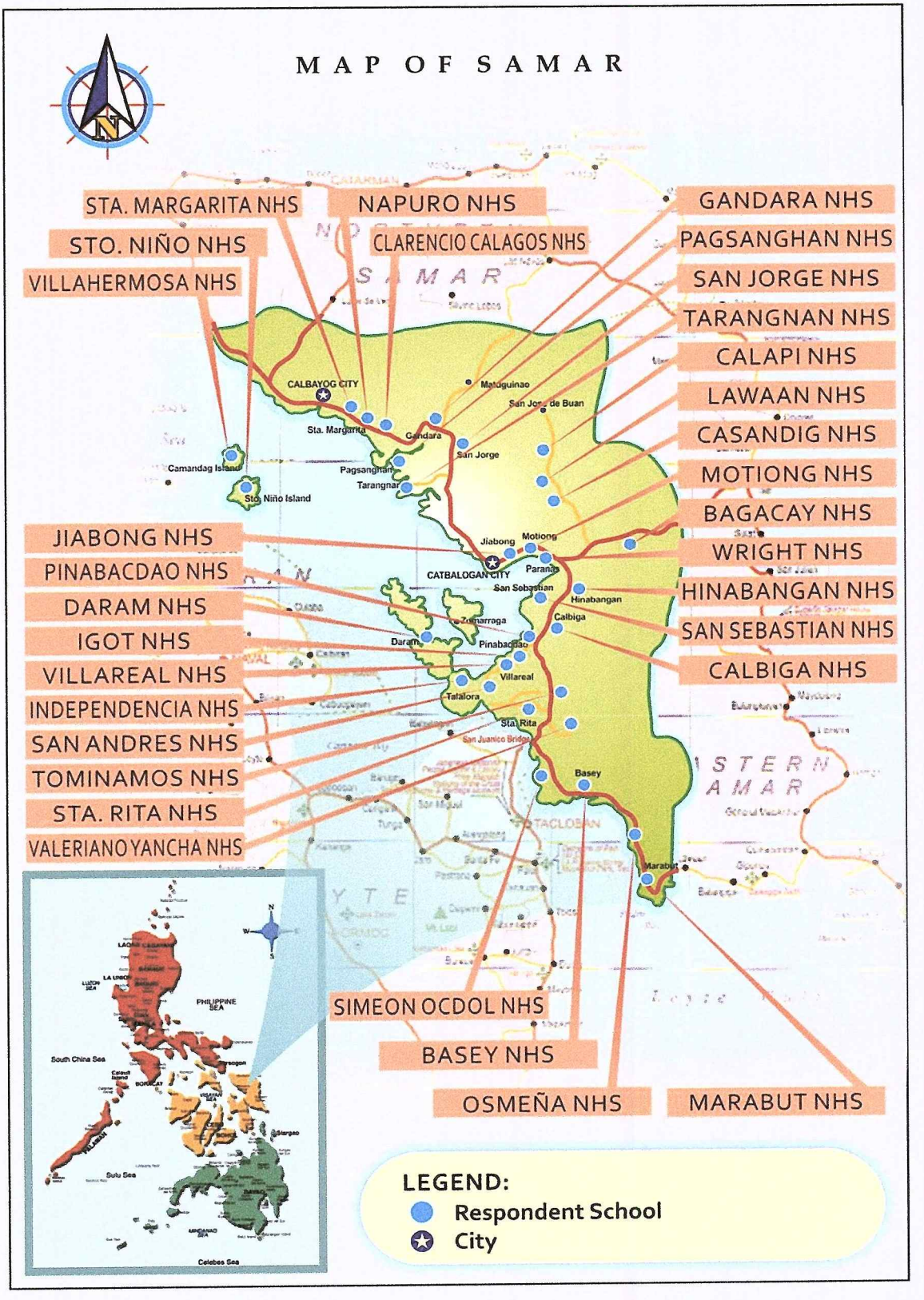

Figure 2. Map of Samar Indicating the Location of the Respondents by Schools

Individual Innovativeness. In this study, it refers to the process of adaptation of new ideas, practices, etc. that the master teacher is likely to accept change in doing research.

Research Competencies. This refers to the ability of the master teachers to search for, locate, extract, organize, evaluate, and use or present information that is relevant to a particular topic (Morales et al., 2016). In this study, this refers to the philosophical basis for the development of a research component as basis on the need to ensure the highest quality of research, the adaptation of evidence-informed educational research, and the need for research to underpin current and future practices by the master teachers.

Chapter 2

REVIEW OF RELATED LITERATURE AND STUDIES

This chapter presents the review of related literature and studies that have bearing to the present study. The herein review of literatures provided the researcher significant inputs that have further helped in the conceptualization of this study.

Related Literature

This section contains relevant citations from different books, journals, published materials, and electronic sources to conceptualize the study at hand.

In the study of Allen and Zhang (2016), students in their baccalaureate degree course were motivated to pursue engineering programs because of the perceived prestige associated with becoming an engineer and because of their personal curiosity in solving problems and understanding how things work. Their motivation for learning through their high post-baccalaureate aspirations, which included pursuing graduate school, achieved academic and vocational success which happened only when a person strategically developed peer relationships and selectively participate in engagement opportunities with the greatest professional or academic benefits.

Based on the study of Conchada and Tiongco (2015), they noted the importance of the existing accreditation processes and roles of accrediting bodies

in the Philippines in order to present a clearer perspective on the current situation of higher education institutions. Similar to other countries in the region, the accreditation process in the country is initiated by the private sector and is also voluntary which adheres to the nature of the academe. Though it is a way of fostering academic freedom and motivating some institutions to compete, this could result in complacency with others. Policy implications include reshaping the institution in terms of keeping an accreditation mechanism built into the system such as a quality assurance framework.

Pierce and Stacey (2013) explicated how good teachers, who do not have a special interest in technology, meet the challenge of introducing the rapidly developing mathematics analysis software into their classrooms. The teachers' practice is viewed through the lens for the diffusion of innovation and pedagogical opportunities and gives a picture of the teachers' perception and uptake of pedagogical opportunities. New practices have been added slowly to each teacher's repertoire, and his/her increasing fluency in practical ability to teach with the technology resulted in some changes to the classroom didactic contract. New technology seemed to have been absorbed into the current practice, more than the changing practice. In this stage of their development, teachers do not identify the distinctive new mathematical capabilities as contributing to the major relative advantage of the innovation. One of the current challenges is that significant changes in both software and hardware design have been happening so rapidly that these early majority teachers felt almost constantly hampered by

the need to learn and teach new technical skills and so continue to make limited progress in taking advantage of opportunities to approach mathematics concepts in new ways.

In the study of Usop, Askandar, and Langguyuan-Kadtong (2013), it was concluded that the teachers of Division of Cotabato City displayed a high level of performance-related skills, abilities, initiatives, and productivity, exceeding requirements in many of the areas of work performance. The teachers in the Division of Cotabato City were contented with their job satisfaction facets such as school policies, supervision, pay, interpersonal relations, opportunities for promotion and growth, working conditions, work itself, achievement, recognition, and responsibility. This implies that a teacher who is satisfied with his job is also a productive one. Furthermore, if the teachers are contented with their job, they will develop and maintain high level of performance in the teaching-learning process and makes it more efficient and effective that could consequently produce high competitive learners.

According to Maher, Feldon, Timmerman, and Chao (2014), writing for publication is an important outcome of doctoral education, but it has received surprisingly little scholarly attention. The study used narratives of faculty who regularly write with their doctoral students for publication to expose students to challenges that are commonly encountered in the writing process. Common challenges include international students' 'writing problem', misconstruing the nature of disciplinary writing, and not realizing that 'public' is part of publication.

In the book of Peters and Bruine de Bruin (2012), it stated about the existing evidence for age-related changes in information processing and decision making skills. Decision making skills, however, are likely not static across the life span, and finding with younger adults may not generalize to middle-aged or older adults' population. This research was conducted to demonstrate series of age-related changes in skills that are expected to be relevant to decision making. These changes include declines in deliberative efficiency and motivated selectivity in the use of deliberative capacity, possible improvements in the use of affective information, and the acquisition of experience.

According to the study of Omeluzor, Madukoma, Bamidele, and Ogbuiyi (2012), an access to electronic information resources would not be necessary for it to be turned into research output without the researcher having utilized the information that contributed to the body of knowledge. However, the need to access electronic information resources in the universities is very important as this could enhance breakthrough in research findings. Research outputs of the academics greatly depended on available and accessible information at their disposal. The responsibility of the academe goes not only beyond teaching in the classroom, but also to research and to publish articles that will support the growth of the economy. The world expect the academe to come up with solutions to present challenges through their research. Therefore, efforts could be geared toward realizing access to electronic information resources so that it could be used maximally to achieve better research outputs.

According to the study of van den Bosch (2012), discipline could be relevant to practice. Good theory is practical precisely because it advances knowledge in a scientific discipline, guides research toward crucial questions, and enlightens the profession of management. Master teachers are considered as the managers of tomorrow and writing a thesis that contributes to the management discipline is essential. Being part of an organization – either as manager or as employee – means hard work, but it also means keeping involved in professional education, updating and extending one's managerial knowledge, and involving in research.

In the study of Avidov-Ungar and Eshet-Alkalai (2011), innovation technology implementation in the schools was considered as follows: (1) technological knowledge, pedagogical knowledge, and content knowledge of teachers; (2) teachers' attitudes toward change; and (3) teachers' perception in school as a learning organization. In general, the teachers' attitudes toward change were found to be positive and the highest scores in the attitudes toward change index were found for the behavioral attitudes. These findings reinforced the claims that the adoption and implementation of change that involved innovation technologies were a personal process, unique to every teacher, and related to his personal beliefs and motivations.

Kelleher et al. (2011) stated that the expectation of parents is mirrored by the teachers. The reason given is that, it was felt that female teachers are a 'substitute mother' and are more likely to have caring attitude toward children. In the study, the reason why teachers went to the profession was that their parents

wanted them to become teachers and they considered teaching to be a family-friendly type of employment. Also, female teachers and parents seemed to believe that teaching has 'more morality' as a profession for women. Another factor for women choosing the profession that came out of the discussion was that, by being a teacher, they could guide their own children better to be successful in their studies.

In the book of Pasick et al. (2009), it was stated that Behaviorism is a learning theory that only focuses on objectively observable behaviors and discounts any independent activities of the mind. Behavior theorists define learning as nothing more than the acquisition of new behavior based on environmental conditions. The Behavioral Theory constructs, most often used to study mammography utilization—perceived benefit, perceived susceptibility, self-efficacy, intention, and subjective norms—have neither been developed nor sufficiently tested among diverse racial/ethnic subgroups. Three social context domains emerged: relational culture, social capital, and transculturation and transmigration. The meaning and appropriateness of the five behavioral constructs were analyzed in relation to these domains. In contradistinction to the tenets of Behavioral Theory, it is found out that social context can influence behavior directly, circumventing or attenuating the influence of individual beliefs; contextual influences, synthesized from multiple perspectives, can operate at an unconscious level not accessible to the individual; and contextual influences are dynamic, contingent on distal and

proximal forces coming together in a given moment and are, thus, not consistent with an exclusive focus at the individual level.

Related Studies

The following are excerpts of related studies reviewed by the researcher and found to be relevant to the present study.

According to Anzaldo and Cudiamat (2019), research plays an important role in education. It enables teachers to discover what went wrong and what could be done to address classroom problems and issues. Teachers are encouraged by the Department of Education (DepEd) and the Commission on Higher Education (CHED) to conduct a school-based research as part of their performance appraisal and evaluation. In addition, it helps the teachers to explore innovative teaching strategies that will suit to the needs of the learners. Although there are promising benefits brought by research, it still remains a challenge among educators due to tight teaching workloads and ancillary roles performed by teachers. This end goal is to help school administrators and education planners to develop capacity building that will help teachers to appreciate more the value of research.

In the study of Abarro (2018), it was concluded that most of the seminars attended by the faculty members in the Division of Antipolo were school-based and division-wide in scope, graduated from University of Rizal System, finished master's degree, and the performance of teachers were above satisfactory level. The civil status, highest educational attainment, scholastic rating, and local

seminars significantly affected the job performance of teachers; while sex, age, type of family, religion, length of service, number of teaching preparations, annual salary, international/national/regional seminars/training attended, and LET performance did not affect the performance of the teachers.

According to Ulla (2018), conducting classroom and school research does not only improve teachers' teaching styles and practices, it also allows teachers to grow professionally and personally. This study identified the experiences, motivations, challenges, and perceived benefits for public high school teachers in Mindanao, Philippines. The findings indicated that most were motivated to do a school research only because they wanted to be promoted and to have an increase in their salary. Some challenges that were reported include the lack of financial support, heavy teaching load, lack of research skills and knowledge, and lack of research resources. Teachers need support not only financially, but also morally to uplift the motivation of the teachers to continue doing research. The school should send teachers to research trainings and workshops to gain the necessary skills and knowledge, and research allowances should be given to teachers so that they will be motivated to conduct research. Doing a research study enhances and improves teachers' teaching practices, widens teachers' understanding of their students' learning needs, and advances their professional experiences. Improved consideration of the challenges faced by these teachers when doing a research study would have a positive effect for teachers, their students, the school, and the community.

The study of Morales et al. (2016) revealed that the concepts of research that were investigated by a survey and interviews indicated that the positive views about research help to develop teachers learning in science and mathematics and promote lifelong learning. Teachers' prior concepts on its long-lasting impacts transcend from instructional practice to addressing student problems. Furthermore, their perceived moderate level of difficulty in conducting research indicated some areas needing professional development programs, such as statistics, data organization, literature searching, and writing reports. In this study, professional development and training programs were highly recommended to address issues in classroom practices through action research and for the Philippine government to review workloads of teachers and provide them with better opportunities for theory-practice-influenced teaching.

In the study of Diaz-Fernandez, Bornay-Barrachina, and Lopez-Cabrales (2015), they tackled about the relationship between human resource (HR) practices and innovative performance in the Spanish industry. It focused on innovativeness, analyzing the extent to which this capability was favored by some human resource management (HRM) practices as investments on training, and whether it was also affected by the use of full time and/or temporary workers. The findings showed that the most innovative firms were also the most competitive ones in terms of added value. Moreover, while a significant and positive relationship between the use of full-time workers and innovativeness was demonstrated, the role of temporary workers/employees remained unclear. Finally, and surprisingly,

training investments on new technologies, languages, and data processes did not have any impact on innovativeness. The paper was closed with a discussion about some lessons the authors may have learned from these wealthy years and the role played by HRM investments on firm.

In the study of Rosso (2014), research on creativity in organization revealed a variety of important paradoxes that seemed fundamental to the nature of creativity itself. The purpose of this study was to make sense of this tension in the literature by investigating the ways in which constraints both inhibit and enhance work team creativity. Based on inductive field research with four research and development teams in a multinational corporation known for innovation, this study addressed the research questions: (a) What are the key constraints experienced by R&D teams and what impact do these have on team creativity? and (b) Under what conditions do constraints inhibit or enhance R&D team creativity? The results of this research challenged the assumption that constraints kill creativity, demonstrating, instead, that for teams to accept and embrace them, there must be freedom in constraint.

According to Styck (2012), there were no significant differences that emerged between accredited and non-accredited programs on any of the training characteristics theorized as important for working with diverse student populations. The results of this study drew inferences regarding the influence of accreditation bodies on the current presence of specific school training program characteristics within training programs. This study was used to investigate the

degree to which differences exist between accredited and non-accredited school training programs on specific characteristics of training theorized to prepare graduates for working with racially, ethnically, and/or linguistically diverse students.

The study of Roeser, Skinner, Beers, and Jennings (2012) showed that training programs for teachers cultivate the mindfulness, how stress was being managed, and the social-emotional demands of teaching needed for professional development (PD) aimed at improving teaching in public schools. Master teachers were hypothesized to promote teachers' "habits of mind," and, thereby, their capacities to create and sustain both supportive relationships with students and classroom climates conducive to student engagement and learning.

In the study of van der Linden et al. (2012), it revealed relationship between research self-efficacy and their personal and professional characteristics, research anxiety, and attitude toward research. This study also revealed that the respondents had a moderate level of research anxiety, high level of research self-efficacy, and positive attitude toward research. It was shown that there was a significant difference between research self-efficacy levels of students with those of Ph.D. students, and Ph.D. students had higher levels of research self-efficacy than any students. Further results indicated that there was a positive significant relationship among age, number of published papers, attitude toward research, and students' research self-efficacy. In addition, the relationship between research anxiety and research self-efficacy was negative.

In the study of Thiry, Laursen, and Hunter (2011) stated that the experimental education has long been emphasized as a part of undergraduate education in the sciences, technology, engineering, and mathematics (STEM) disciplines through laboratory and project-based work, as well as out-of-class participation in internship, co-ops, and research. The value of experimental education was largely presumed: evidence from well-designed research and evaluation studies was fairly sparse about the education value of either course-based lab work or more in-depth experimental education in STEM.

According to the study of Calma (2010), Philippine government and universities could learn by examining their current contribution to building research capacity against the challenges regarding funding issues. They find ways to address these issues particularly in funding areas related to developing staff and student research skills. Research students and academic staff required the financial support to involve them in a range of programs to enhance research skills and develop expertise. This study revealed that funding issue is not simply about having little money allocated for research and research training. The issue of funding would continue to put pressure among universities and the government in their mission to develop university research and strengthen research training systems. In many ways, universities' decisions would likely reflect their commitment toward being recognized internationally in research. Improving university infrastructure and services and expanding research training

opportunities and experiences for academic staff and students can manifest such commitments.

According to Calma (2009), postgraduate education in the Philippines continued struggling in promoting its position as a major player in the Asia-Pacific region. Academic staff and research higher degree students were not getting enough support for research training which then impacted to the research output and Higher Education Institutions (HEI) research performance. Thus, a few key areas for scrutiny and possible strategies had been presented for consideration by HEIs as they struggled to gain ground and recognition in research. Given that the Philippine higher education is embarking on new ways to enhance research, developing research training policies and practices need to be given high priority. Overall, research training in the country has potential for development in many areas.

According to Basilio and Bueno, majority of the MTs were middle-aged, female and married, earned MA/MS units, and have served as Master Teacher I for 1-4 years. A very small percentage of them had attended research-related trainings or conferences, and had undertaken, published, or presented researches. The MTs had average skills in searching, using, and evaluating information including their awareness on the various sources of information and where to obtain them. They had fair skills in designing experimental study as well as selecting and developing research instruments, choosing appropriate statistical tools, and preparing manuscript for publication. The MTs strongly valued training

in educational research, but moderately applied research findings to real-life contexts. They had high regards relative to the value of doing research to become better educators. Time, efforts, and resources in learning about research findings were essential elements to create positive attitudes toward research.

In the study of Wong, it depicted that the ladder of research culture in the Basic Education Institution in the Philippines requires collaboration and effort to both the teachers and the institution. Such an effort must be focused on the driving forces that would help teachers improve their research capabilities such as attitude toward research, research knowledge, and a supportive institution. This study, therefore, provided an implication that there is a need for the Department of Education to develop a comprehensive research capability enhancement program to help the master teachers raise their level of capability. Such program may include not only a series of training focusing not only on increasing the teachers' knowledge in research, but at the same time, conducting, presenting, and publishing their research output.

The above-cited studies are related to the present study as the latter looked into the research competencies in doing research, the attitude in conducting research, and the challenges encountered by teachers in conducting research.

Chapter 3

METHODOLOGY

This chapter presents the methods undertaken in the conduct of the study. Included in this chapter are the following: research design, instrumentation, validation of the instrument, sampling procedure, data gathering procedure, and statistical and qualitative treatment of data.

Research Design

This study utilized mixed method design which emphasized quantitative analysis followed by interview for qualitative measures.

Mixed method design is a type of research design in which qualitative and quantitative approaches are used in types of questions, research methods, data collection and analysis procedures, and inferences. Mixed method design provides better inferences and minimizes universal method bias. In the study, the researcher selected mixed method sequential explanatory design in order to search out the opportunity for a greater assortment of divergent views.

Mixed method design was used in this study because it collects and analyzes both quantitative and qualitative data and draws on potential strengths of both qualitative and quantitative methods. Mixed methods design also explores the diverse perspectives and uncovers relationships that exist between the research questions.

Instrumentation

The instrument used in this study were: (1) Demographic profile of the respondents; (2) Individual innovativeness of the researchers in making research work; (3) Level of research competencies of the respondents; (4) Attitude of the respondents in doing research; and (5) Challenges faced by the respondents in doing research.

Standardized instrument was used in this study using the tools of Research Competencies Framework (Gray, 2007) and Individual Innovativeness (Hurt, Joseph, & Cook, 2013). The standardized tool utilized survey questionnaire being the primary data gathering tool.

The survey questionnaire had five parts. Part I contained demographic profile of the respondents which included age, sex, educational attainment, position, latest performance rating, field of specialization, length of service, research-related trainings attended, track record in research undertakings along with the title of the research conducted, number of researches conducted, role of the researcher on the research conducted, funding of the research conducted, and area/scope of the research conducted.

Part II was all about individual innovativeness of the researchers in making research work. There were 20 items in the questionnaire that referred to the process of the adaptation of new ideas in making research. Individual innovativeness scoring was based on the following computation: Step 1 - Adding the scores for items 4, 6, 7, 10, 13, 15, 17, and 20; Step 2 - Adding the scores for

items 1, 2, 3, 5, 8, 9, 11, 12, 14, 16, 18, and 19; and Step 3 - Completing the following formula: II = 42 + total score for Step 2 - total score for Step 1. Scores above 80 were classified as Innovators. Scores between 69 and 80 were classified as Early Adopters. Scores between 57 and 68 were classified as Early Majority. Scores between 46 and 56 were classified as Late Majority. Scores below 46 were classified as Laggards/Traditionalists. In general, people who scored above 68 were considered highly innovative, and people who scored below 64 were considered low in innovativeness.

Part III of the instrument ascertained the level of research competencies of respondents along practical research skills, problem-solving, thinking and communication skills, personal attitudes and professional ethics, dissemination, and roles and functions. Five columns were provided to represent the five-point scale as to their level of research skills. There were 26 items under the research competencies. Practical research skills and problem-solving, and thinking and communication skills could be measured by levels as follows: excellent (23-25 points), above average (18-22 points), average (13-17 points), low (8 -12 points), and very low (below 8 points). Personal attitudes and professional ethic skills could be measured by levels as follows: excellent (14 points and above), above average (11-13 points), average (8-10 points), low (5 -7 points), and very low (below 5 points). Dissemination skills could be measured by levels as follows: excellent (9 points and above), above average (7-8 points), average (5-6 points),

low (3-4 points), and very low (below 3 points). Roles and functions skills could be measured by levels as follows: excellent (27 points and above), above average (21-26 points), average (15-20 points), low (9-14 points), and very low (below 9 points).

Part IV was about the attitude of the respondents in doing research. There were 10 items in the questionnaire that referred to the perceptions of teachers regarding action research. Attitude of master teacher-respondents could be measured by levels as follows: high positive attitude (35 points and above), positive attitude (25-34 points), negative attitude (15–24 points), and high negative attitude (below 15 points).

Part V was about the challenges faced by the respondents in doing research. There were 15 items for the challenges in doing research. All the items in Parts III and IV of the questionnaire followed a four-point Likert scale format of totally agree, agree, disagree, and totally disagree.

After the respondents completed the survey questionnaire, a focus group discussion (FGD) was conducted. The FGD was done in different times since most of the master teachers were also teaching. The schedule for FGD was done based on the availability of the respondents. During the FGD, the researcher gathered together the master teachers from similar backgrounds or experiences in doing their duties and responsibilities to conduct research. The researcher served as a moderator who introduced the research competencies and attitudes of master

teachers in doing their research work that made the respondents' participation a lively and natural discussion among themselves.

The strength of this FGD relied on the participants who agreed or disagreed with one another to the agreed time so that it provided an insight into how a group thought about an issue, about the range of opinion and ideas, and the inconsistencies and variation that existed in DepEd in terms of beliefs and their experiences and practices.

The research adopted the instrument by submitting and presenting to the Committee on Oral Examination during the pre-oral defense for their careful scrutiny and perusal. Revisions and improvements were made based on the comments by the panel. Also, a dry run of the research instrument was conducted by the researcher.

Getting the Cronbach Alpha Coefficient which value was equal to 0.947, that determined the validity and reliability of the instrument in the dry run.

Validation of Instrument

To ascertain the validity of the instrument, copies of the instrument were submitted and presented to the Committee on Oral Examination during the pre-oral defense for their careful scrutiny and perusal. Revisions and improvements were made based on the comments by the panel.

After the revision and improvements of the instrument, a dry run of the research instrument was conducted by the researcher to the master teachers of

Samar National High School (SNS), Catbalogan City. SNS was chosen as the locale of the dry run because of its geographical location and other characteristics that were almost the same with the locale of the actual study. The purpose of conducting the dry run was to ensure the reliability and validity of the instrument to be used in the study.

A formal letter was presented to and approved by the School Principal of SNS as permission to administer the research questionnaire. With the consent of the participants of the survey, it was entirely voluntary and there were no known or anticipated risks to their participation in the study. All information provided were kept with utmost confidentiality and were used only for academic purposes. The name of the respondents and the name of their school were not disclosed in this dissertation and would also not appear in the publication unless agreed to. After data had been analyzed, the respondents or the school received a copy of the executive summary of results. An electronic copy (e.g. PDF) of the entire dissertation paper could also be made available for them.

The Cronbach Alpha Coefficient value was 0.947 that determined the validity and reliability of the instrument in the dry run.

Sampling Procedure

Total enumeration or total population sampling was used in this study as a type of purposive sampling technique wherein the entire population that had a particular set of characteristics was chosen.

The study involved a total of 128 master teachers which was composed of 116 Master Teachers I and 12 Master Teachers II from the secondary schools in the Division of Samar. This study was conducted during the school year 2019-2020.

Data Gathering Procedure

A formal letter of request was sent to the Schools Division Superintendent of Samar Division for the permission to administer the research questionnaire. Upon the approval of the request, the questionnaires were distributed to the respondents through the school heads, teachers-in-charge, or principals of the master teachers involved in the participating schools. A consent to the participation in the survey was entirely voluntary and there were no known or anticipated risks to the participation in the study. All information provided were kept with utmost confidentiality and would be used only for academic purposes. The name of the participants and the name of the school would not appear in this dissertation or in publication resulting from this study unless agreed to. Also, the researcher was given certificate of appearance by the school as proof that a survey in the participant school was conducted.

The survey occurred between August 14 and September 5, 2019 scheduled among the different secondary schools of Samar Division. A certificate of appearance was given by each school head from the different schools surveyed.

After the retrieval of the questionnaires, the data were then processed. A code served as a substitute to each participant starting from P1 (Participant 1) up the last number of participant in the survey.

Statistical Treatment of Data

The master teachers' profile, level of research competencies, attitudes, and challenges faced in conduction research were tabulated using frequency counts, percentages, and means with corresponding interpretations.

One-way ANOVA test was used in this study to determine the difference in the level of research skills as grouped according to profile variables. The one-way ANOVA compared the means between groups and determined whether any of those means were statistically significantly different from each other. It was also used to determine whether there were any statistically significant differences between the research competencies and attitude of master teachers in doing research.

In this study, the use also of 'post-hoc analysis' was considered as major step in the hypothesis testing. The method of post-hoc analysis used was Tukey's Test that compared the means of all treatments to the mean of every other treatment and was considered as the best available method in cases when confidence intervals were desired.

Statistical Package for the Social Sciences (SPSS, IBM Statistics Version 26) was used to determine a significant relationship between the level of research

skills and attitudes of the master teachers with regard to doing research. In the SPSS, the descriptive statistics, correlations, and data visualization were analyzed to have a quick analysis and to dig more deeply into the insights of the data.

In analyzing the data for the result of FGD, the NVivo application software was utilized. This was the most powerful software for gaining richer insights from qualitative and mixed method data. NVivo gives a place to organize, store, and retrieve the data so that one could work more efficiently, save time, and rigorously back up findings with evidence. It could import data, virtually, from any sources – text, audio, video, emails, images, spreadsheets, online surveys, social and web content, and more.

Chapter 4

PRESENTATION, ANALYSIS, AND INTERPRETATION OF DATA

This chapter contains the presentation, analysis, and interpretation of the data gathered with the use of questionnaire fielded to respondents of the study. The data were presented in tables representing the responses of the Master Teachers of Samar Division.

Profile of the Respondents

Age and Sex. Table 1 shows the age and sex distribution of the respondents. As shown, the highest number with 31 master teachers (24.22 percent) are from 50 -54 years old while the least with seven (5.47 percent) are 30-34 years old. Hence, the average age of the respondents is 48.79 years old with standard deviation of 7.75 years old.

Along sex distribution, majority of them, that is 106 (82.81 percent) are females and 22 (17.19 percent) are males.

This means that most of the respondents are females who are indulged in the teaching profession. This finding can be justified by the study of Kelleher et al. (2011) stating that the reason why most teachers are females is that female teachers are a 'substitute mother' and are more likely to have caring attitude toward children.

Table 1

Age and Sex Distribution of the Respondents

Age (in years)	Sex Category				Total	Percent
	Female		Male			
	f	%	f	%		
60-64	9	8.49	0	0.00	9	7.03
55-59	18	16.98	4	18.18	22	17.19
50-54	24	22.64	7	31.82	31	24.22
45-49	23	21.70	6	27.27	29	22.66
40-44	18	16.98	2	9.09	20	15.63
35-39	8	7.55	2	9.09	10	7.81
30-34	6	5.66	1	4.55	7	5.47
Total	**106**	**100.00**	**22**	**100.00**	**128**	**100.00**
Percent	**82.81**		**17.19**		**100.00**	
Mean	**48.87 yrs**	-	**48.43 yrs**	-	**48.79 yrs**	-
SD	**8.01 yrs**	-	**yrs**	-	**yrs**	-

Educational background. Table 2 presents the profile of respondents in terms of their educational attainment. It measures progress by using the educational attainment statistic which tracks the highest levels of education attained by the respondents. These statistics can measure the population percentage with a doctorate, a master's degree, and a bachelor's degree. As shown in the table, most of the respondents were master's degree holders with 50 or 39.1 percent of them.

In DepEd Order No. 7, series 2015, it was stated that the hiring guidelines for teachers are not based on the major taken from their baccalaureate degree courses, but DepEd aims to address through its comprehensive implementation of the K to 12 Basic Education Program through highly competent teachers in public secondary schools.

Table 2

Educational Background of the Respondents

Educational Background	f	Percent
Doctoral Degree Holder	3	2.34
CAR in Doctorate Level	6	4.69
Master's Degree Holder	50	39.06
CAR in Master's Level	43	33.59
Baccalaureate Degree	26	20.31
Total	128	100.00
Specialization	**f**	**Percent**
STEM (Science, Technology, Mathematics, Engineering) Courses	51	39.84
Non-Science and technology Courses	75	58.59
Not Specified	2	1.56
Total	128	100.00
School's Accreditation Level (Based from PAASCU, PACU-COA and ACSCU-AAI accredited Agencies)	**f**	**Percent**
Level 1 Accredited	52	40.63
Level 2 Accredited	25	19.53
Level 3 Accredited	51	39.84
Total	128	100.00

The DepEd's plan is to achieve its objective through significantly improving professional standards that will better ensure that the teachers hired are able to substantially contribute to the development of lifelong learners and fitness principle of the Civil Service Doctrine of the Constitution.

Table 2 also shows the respondents' field of specialization in their baccalaureate degree. It shows that majority of the master teachers involved in the study were non-science and technology majors, that is, major in English, Filipino, Araling Panlipunan, etc.

This means that though master teachers did not specialize in STEM, still, they were doing research work as part of their duties. Yet, based on the study of Thiry, Laursen, & Hunter (2011), STEM discipline is engaged in laboratory and project-based course work, as well as out-of-class participation in internships, co-ops, and research. The value of experimental education like STEM discipline is largely evident from well-design search and evaluation studies to spare for development.

Accreditation is one way that Higher Education Institutions keep themselves in checking the standards of the school. The Federation of Accrediting Agencies in the Philippines is the umbrella organization of three accrediting agencies in the Philippines, namely: (1) Philippine Accrediting Association of Schools, College, and Universities (PAASCU); (2) Philippine Association of College and Universities Commission on Accreditation (PACU-COA); and (3) Association of Christian Schools, Colleges, and Universities Accrediting Agency, Inc. (ACSCU-AAI) (Conchada & Tiongco, 2015).

In Table 2, it also shows the respondents' educational attainments with regard to the school they have graduated from. It could be seen from the table that the highest number of respondents were from Level 1 accredited schools with 52 or 40.63 percent, and the lowest number of respondents were from Level 2 with 25 or 19.53 percent.

Rank/Position. In the DECS Order No. 39, s. 1990, it was stated that "Master Teachers should concentrate on the given full teaching loads, except those with

special projects or researches, in which a minimum of four teaching loads are given." Therefore, Master Teacher position has the duty and obligation to conduct research.

One of the reasons why teachers are looking for promotion and aiming to a Master Teacher position is that they want their salary to increase and the only way to be promoted is by completing a Master's Degree or by earning additional units.

In terms of rank/position of the respondents, majority of the respondents were Master Teacher 1 with 116 or 90.63 percent of them, and the remaining 12 or 9.38 percent were Master Teacher 2 as shown in Table 3.

Table 3

Rank/Position of the Respondents

Rank/Position	f	Percent
Master Teacher 1	116	90.63
Master Teacher 2	12	9.38
Total	**128**	**100.00**

Latest Performance Rating. Table 4 shows that majority of the respondents, 118 or 92.19 percent of them, obtained a "very satisfactory rating".

This means that majority of respondents were assessed and obtained a "very satisfactory rating". In assessing the Master Teachers' competence, it has to come up with several measures which include classroom observations through a classroom observation tool, attendance in seminars and trainings, and follow-up of students who are at risk of dropping out through modes of verification, such as certificates and

Table 4

Latest Performance Rating of the Respondents

Performance Rating	f	Percent
Satisfactory Performance	1	0.78
Very Satisfactory Performance	118	92.19
Outstanding Performance	9	7.03
Total	**128**	**100.00**

other pieces of evidence. All these activities are reflected in the teacher's Individual Performance Commitment and Review Form (IPCRF). The IPCRF rating scale and interpretation, based on the score of the IPCRF, could be rated 4.500-5.000 for outstanding performance, 3.500-4.499 for very satisfactory performance, 2.500-3.499 for satisfactory performance, 1.500-2.499 for unsatisfactory performance, and below 1.499 for poor performance.

In the light of this finding, Abarro (2018) implied that the performance of teachers which are above satisfactory level do not affect their actual performance.

Length of Service. Table 5 shows the length of service of the respondents. Teachers' retention in the DepEd can be measured quite accurately by the actual number of years that teachers have worked in the organization. DepEd teachers who work longer in the organization perceive that working hours just to be in school because they have that passion in teaching. Also, DepEd has tailored in enhancing employee satisfaction and loyalty that can lead to higher service quality delivery. Teachers who are well-rooted in their jobs have little or no intention to leave their organization and will likely have higher work performance.

Table 5

Length of Service of the Respondents

Length of Service (in years)	f	Percent
42-45	1	0.78
38-41	2	1.56
34-37	9	7.03
30-33	19	14.84
26-29	15	11.72
22-25	21	16.41
18-21	20	15.63
14-17	21	16.41
10-13	14	10.94
6-9	6	4.69
Total	**128**	**100.00**
Mean	**22.35 years**	-
SD	**8.31 years**	-

It can be gleaned from the table that the highest number of respondents are ranging 22-25 years and 14-17 years in the service, both with 16.41 percent of them. Hence, the average length of service of the master teachers was 22.35 years in the service with standard deviation of 8.31 years.

Research-related Trainings. In terms of research-related trainings attended, majority of the respondents were not attending trainings, but 23 out 128 respondents or 17.97 percent were attending trainings, while the trainings attended by the respondents lasted for 1-5 days as shown in Table 6.

This means that master teachers were doing their research without attending research-related trainings. This is contradictory to the implementation of the DepEd that trainings could help teachers improve research skills. This finding is justified by the study of Roeser, Skinner, Beers, and Jennings (2012)

Table 6

Research-Related Training Attended by the Respondents

Research-Related Program	f	Percent
Field of Training Program		
Research	23	17.97
Type of Training Program		
Action Research	23	17.97
Period/Duration		
1 - 5 days	23	17.97

which stated that trainings are needed by teachers for them to improve their attitude in making research, to promote their "habits of mind", and develop student engagement and learning.

Research Undertakings. Table 7 shows the number of researches conducted by the respondents. There are two out of 128 respondents or 1.56 percent who conducted three researches within a year, 11 out of 128 or 8.59 percent of them conducted two researches in one year, while 24 out of 128 or 19.75 percent conducted one research in a whole year round. The remaining respondents were not conducting research at all.

Of those respondents who conducted research, there were 35 out of 128 or 27.34 percent served as a study leader and two out of 128 or 1.56 percent served as a member of the research work. The remaining respondents were not conducting research at all.

On the other hand, 22 out of 128 respondents or 17.19 percent were funded with 5,000.00 pesos and below which was given for research implementation, and

Table 7

Research Undertakings of the Master Teacher-Respondents

Research Undertakings	f	Percent
Number of Research Conducted		
3	2	1.56
2	11	8.59
1	24	18.75
Role on the Research Conducted		
Study Leader	35	27.34
Member	2	1.56
Amount of Fund		
275,000.00	1	0.78
70,000.00	1	0.78
30,000.00	1	0.78
7,415.00	1	0.78
5000 & below	22	17.19
Personal	24	18.75
External	2	1.56
Duration of Fund		
6 months and above	2	1.56

four out of 128 or 3.13 percent were funded with 7,415.00 and above to implement the research. Those whose source of the fund was taken from personal expenses were 24 out 128 or 18.75 percent, and two out 128 or 1.56 percent had their fund from external sources. The remaining respondents were not conducting research at all.

The two out of 128 respondents or 1.56 percent were given six months and above as duration with the fund. Again, the remaining respondents were not conducting research at all.

This means that majority of master teachers in Samar Division were not engaged in conducting research and for those master teachers who were

conducting research were funded with a minimal amount and, mostly, the fund was taken from personal expenses. This finding can be justified by the study of Wong which explicated that there is a need for the Department of Education to develop a comprehensive research capability enhancement program to help the master teachers raise their level of capability.

Individual Innovativeness. Innovation is viewed as fundamental cognitive aspect and is based on the concept of individual intelligence that is being developed. It is a purposeful information processing that enables one to adapt to environmental demands.

Individual innovativeness can be categorized as innovators who focus on creating new ideas, analyzing problems, diagnosing them, and identifying their causes. Early adopter refers to an individual who notices and embraces trends right before they become used in the research. Early majority refers to individuals who adopt the new ideas after they have seen it successfully being used by early adopters. Late majority are individuals who are adopting new ideas just after the average member of the society is using it or in response to increasing social pressure. Lastly, laggards are the traditionalists and the last to adopt an innovation.

Table 8 refers to the measurement of the respondents' individual orientation toward innovation. It gleaned from the table that majority of the master teachers are high in early majority with 102 or 79.69 percent and 17 or 13.28 percent are early adopters. While nine or 7.03 percent are considered low in early majority.

Table 8

Level of Individual Innovativeness of the Respondents

Level of Individual Innovativeness	f	Percent
High		
Early Adopters	17	13.28
Early Majority	102	79.69
Low		
Late Majority	9	7.03
Total	**128**	**100.0**

This means that majority of master teachers' individual innovativeness are high in adopting the new ideas after they have seen it successfully being used by others. This finding can be justified by the study of Pierce and Stacey (2013) that new technology seemed to have been absorbed into current practice, more than changing practice. At this stage of their development, these teachers do not identify the distinctive new mathematical capabilities as contributing to the major relative advantage of the innovation. Instead, they see the relative advantage mostly in the incremental improvements to capabilities of earlier calculators, and meeting the need for students to be up to date.

Level of Research Competencies of the Master Teachers-Respondents

Practical Research Skills. This is the domain of the research competencies that develops, maintains, promotes, and shows awareness of the vision, culture, and strategic direction of research and the development of methods used within

the organization. This domain is divided into competencies like finding and using resources, using library and information technology effectively, recognizing and knowing when to use primary and secondary resources, observing and recording behavior, and demonstrating basic computer competency.

Table 9 shows the practical research skills of the respondents. The highest number of respondents were above average with 45 or 35.16 percent, while the lowest number of respondents were low level skills with two or 1.56 percent.

Table 9

Level of Research Competencies of the Respondents

Level	Research Competency Skills									
	Practical Research Skills		Problem Solving, Thinking & Comm Skills		Personal Attitude & Professional Ethics		Dissemination		Roles & Functions	
	f	Percent	f	Percent	f	Percent	f	Percent	f	Percent
Excellent	42	32.81	48	37.50	43	33.59	47	36.72	37	28.91
Above Average	45	35.16	55	42.97	50	39.06	38	29.69	27	21.09
Average	39	30.47	21	16.41	30	23.44	33	25.78	53	41.41
Low	2	1.56	4	3.13	4	3.13	8	6.25	9	7.03
Very Low	0	0.00	0	0.00	1	0.78	2	1.56	2	1.56
Total	**128**	**100.00**	**128**	**100.00**	**128**	**100.00**	**128**	**100.00**	**128**	**100.00**

This means that master teachers in Samar Division were above average in developing, maintaining, promoting, and showing awareness of the vision, culture and strategic direction of research and the development of methods used in the DepEd. This finding can be justified by the study of Basilio and Bueno (2019) which stated that MTs strongly value training in educational research, but

moderately apply research findings to real-life context. They have high regards relative to the value of doing research to become better educators.

Problem-solving, Thinking, and Communication Skills. This is the domain of the research competencies that provides a framework to enable continuous improvement and evaluation of research standards and methods used to improve the qualities of the organization. This domain is dealing with the individual's ability to critique, communicate, and identify shortfalls in existing information. This domain is divided into competencies like understanding the difference between subjective and objective information, recognizing when information provided is sufficient, evaluating when the basis for conclusions is laid out completely and clearly, generating research questions by recognizing gaps in knowledge, and using oral and written communication to express ideas effectively in existing information.

Table 9 shows the problem-solving, thinking, and communication skills of the respondents. The highest number of respondents were above average with 55 or 42.97 percent, while the lowest number of respondents were low level skills with four or 3.13 percent.

This means that master teachers in Samar Division were above average in providing a framework to enable continuous improvement and evaluation of research standards and methods used to improve the qualities of DepEd. This contradicts with the study of Basilio and Bueno (2019) which said that MTs have average skills in searching, using, and evaluating information including their

awareness on the various sources of information and where to obtain them. They have fair skills in designing experimental study as well as selecting and developing research instruments, choosing appropriate statistical tools, and preparing manuscript for publication.

Personal Attitude and Professional Ethics Skills. This is the domain of the research competencies that contributes to the development, delivery and evaluation of research, in partnership and alone, to meet the needs of fellow professionals, stakeholders, and the community. This domain is divided into three competencies that cover personal attitudes and professional ethics. This domain is divided into competencies like demonstrating an appreciation of the necessity and value of research for competent educational practice, demonstrating an awareness and adherence of ethical principles underpinning research, in particular those produced by the Department of Education, and designing and implementing research studies that evaluate educational practice and service delivery.

Table 9 shows the personal attitude and professional ethics skills of the respondents. The highest number of respondents were above average with 50 or 39.06 percent, while the lowest number of respondents were low level skills with one or 0.78 percent.

Dissemination Skills. This is the domain of the research competencies that contributes to the development, delivery and evaluation of dental care services, in partnership and alone, to meet the needs of fellow professionals, stakeholders, and the community. This domain is divided into two competencies which deal with

the dissemination of research findings and the ability to influence educational practices. This domain is divided into competencies like demonstrating the skills required for publication of research reports and changing educational practices based on outcome studies and other researches.

Table 9 shows the dissemination skills of the respondents. The highest number of respondents were excellent with 47 or 36.72 percent, while the lowest number of respondents were low level skills with two or 1.56 percent.

This means that master teachers in Samar Division were above average in their Personal Attitude and Professional Ethics Skills and excellent in Dissemination Skills that contribute to the development, delivery and evaluation of research, in partnership and alone, to meet the needs of fellow professionals, stakeholders, and the community. This contradicts with the study of Basilio and Bueno (2019) which elucidated that MTs should improve their research attitudes related to classroom or school-based research, the applicability or usefulness of research findings to real-life context, and the reporting and publication of outputs.

Roles and Function Skills. This is the domain of the research competencies that manages and evaluates systems and resources to provide efficient and ongoing support to the department of education. This domain is divided into competencies like engaging in activities that contribute to the development of a body of knowledge relevant to organization, designing and implementing a series of studies that addresses a significant issue, writing research funding applications to major funding bodies, offering help and support to other researchers, publishing in major journals

and contributing to theory within a particular area of study.

Table 9 shows the roles and function skills of the respondents. The highest number of respondents were average with 53 or 41.41 percent, while the lowest number of respondents were low level skills with two or 1.56 percent.

This means that master teachers in Samar Division were average in managing and evaluating systems and resources to provide efficient and ongoing support to the Department of Education. This finding can be justified in the study of Basilio and Bueno (2019) which explained that researchers needed to develop engaging activities that contribute to the development of knowledge, designing and implementing a series of studies that addresses a significant issue, writing research funding applications to major funding bodies, offering help and support to other researchers, publishing major journals, and contributing to the theory within a particular area of study.

Comparison on the Level Research Competencies of the Respondents According to their Profile

Level of Research Competencies of Master Teacher According to Age.

Table 10 shows that the respondents' Problem Solving and Communication skills wer significant to the age of respondents with 0.04, specifically for 36-45 years old and 46 years old and above with 0.013.

Table 10

Comparison Among the Level of Research Competencies of the Respondents According to their Age

Descriptives							
Research Competencies	**Age Bracket**				**N**	**Mean**	
Problem-solving, thinking and communication skills	35 years and below				9	20.89	
	36-45 years				31	18.94	
	46 years and above				88	20.70	
	Total				128	20.29	
ANOVA							
Research Competencies	**Sources of Variation**	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**	**Evaluation**
Problem-solving, thinking and communication skills	Between Groups	75.2	2	37.6	3.30	0.04	S
	Within Groups	1423.1	125	11.4			
	Total	1498.3	127				
Post Hoc Analysis (Tukey HSD)							
Research Competencies	**Pair**			**Mean Difference**		**Sig.**	**Evaluation**
Problem-solving, thinking and communication skills	36-45 years & 46 years and above			-1.77		.013	S

This means that respondents whose age was 35 years and below were better on understanding the difference between subjective and objective information, recognizing the information provided was sufficient, evaluating when the basis for conclusions was laid out completely and clearly, generating research questions by recognizing gaps in knowledge, and using oral and written communication to express ideas effectively in existing information. This finding is implied by the study of Peters and Bruine de Bruin (2012) which stated that changes in age decline in efficiency and the relative use of their capacity in thinking would

have possible improvements in the use of information with the acquisition of experience.

Level of Research Competencies of Master Teacher According to Sex. Table 11 shows that the respondents' level of research competencies was not significant to their sex.

Table 11

Comparison Among the Level of Research Competencies of the Respondents According to Sex Category

Group Statistics			
Research Competencies	**Sex Category**	**N**	**Mean**
Practical Research Skills	Female	106	20.12
	Male	22	19.50
Problem-solving, thinking & Communication Skills	Female	106	20.42
	Male	22	19.68
Personal Attitudes & Professional Ethics	Female	106	11.97
	Male	22	11.45
Dissemination	Female	106	7.87
	Male	22	7.27
Roles and Functions	Female	106	21.27
	Male	22	21.41

Level of Research Competencies of Master Teacher According to Educational Background. Table 12 shows that the respondents' practical research skills were significant to their educational background with 0.44. Specifically, they were significant to CAR holders in master's level and master's degree holders with 0.014, and master's degree holders and doctoral degree holders with 0.51.

Table 12

Comparison Among the Level of Research Competencies of the Respondents according to their Educational Background

Descriptives

Research Competencies	Educational Background	N	Mean
Practical Research Skills	Baccalaureate Degree	26	19.81
	CAR in Master's Level	43	18.95
	Master's Degree Holder	50	21.04
	CAR in Doctorate Level	6	21.83
	Doctoral Degree Holder	3	16.33
	Total	128	20.02
Personal Attitudes and professional ethics	Baccalaureate Degree	26	11.54
	CAR in Master's Level	43	11.26
	Master's Degree Holder	50	12.50
	CAR in Doctorate Level	6	13.33
	Doctoral Degree Holder	3	10.67
	Total	128	11.88
Dissemination	Baccalaureate Degree	26	7.42
	CAR in Master's Level	43	7.14
	Master's Degree Holder	50	8.32
	CAR in Doctorate Level	6	9.50
	Doctoral Degree Holder	3	7.00
	Total	128	7.77
Roles and Functions	Baccalaureate Degree	26	20.08
	CAR in Master's Level	43	19.74
	Master's Degree Holder	50	23.02
	CAR in Doctorate Level	6	23.83
	Doctoral Degree Holder	3	20.33
	Total	128	21.30

ANOVA

Research Competencies	Sources of Variation	Sum of Squares	Df	Mean Square	F	Sig.	Evaluation
Practical Research Skills	Between Groups	162.6	4	40.65	2.52	.044	S
	Within Groups	1981.4	123	16.11			
	Total	2144.0	127				

Research Competencies	Sources of Variation	Sum of Squares	Df	Mean Square	F	Sig.	Evaluation
Personal Attitudes and professional ethics	Between Groups	56.1	4	14.02	2.66	.036	S
	Within Groups	649.1	123	5.28			
	Total	705.2	127				
Dissemination	Between Groups	55.1	4	13.77	3.68	.007	S
	Within Groups	459.9	123	3.74			
	Total	515.0	127				
Roles and Functions	Between Groups	332.2	4	83.05	2.84	.027	S
	Within Groups	3592.5	123	29.21			
	Total	3924.7	127				

Post Hoc Analysis (Tukey HSD)

Research Competencies	Pair	Mean Difference	Sig.	Evaluation
Practical Research Skills	CAR in Master's Level & Master's Degree Holder	-2.09	.014	S
	Master's Degree Holder & Doctoral Degree Holder	4.71	.051	S
Personal Attitudes and professional ethics	CAR in Master's Level & Master's Degree Holder	-1.24	.010	S
	CAR in Master's Level & CAR in Doctorate Level	-2.08	.040	S
Dissemination	Baccalaureate & CAR in Doctorate Degree	-2.08	.182	S
	CAR in Master's Level & Master's Degree Holder	-1.18	.556	S
	CAR in Master's Level & CAR in Doctorate Level	-2.36	.057	S
Roles and Functions	Bacclaureate & Master's Degree Holder	-2.94	.026	S
	CAR in Master's Level & Master's Degree Holder	-3.28	.004	S

This means that CAR holders in master's level and master's degree holders, and master's degree holders and doctoral degree holders were better in finding and

using of resources, using the library and information technology effectively, recognizing and knowing when to use primary and secondary resources, observing and recording behavior, and demonstrating basic computer competency. These findings imply that the study of Omeluzor, Madukoma, Bamidele, and Ogbuiyi (2012), which indicated a need of access to electronic information resources in the universities, was very important as this could enhance breakthrough in research findings. Research outputs of the academics greatly depend on availability and accessibility information at their disposal.

The respondents' personal attitude and professional ethics skills were significant to the educational background with 0.36. Specifically, they were significant to CAR holders in master's level and master's degree holders with 0.10, and CAR holders in both master's and doctorate levels with 0.40 as shown in Table 12.

This means that CAR holders in master's level and master's degree holders with 0.10, and CAR holders in both master's level and doctorate level were better in demonstrating and appreciating the necessity and value of research for competent research practice, demonstrating an awareness of and adherence to the ethical principles underpinning research activities, and designing and implementing research studies. These findings imply that the study of van den Bosch (2012) about good theory was practical because it advanced knowledge in a scientific discipline, guided research toward crucial questions, enlightened the profession of

management, and master teachers were considered as the managers of tomorrow.

The respondents' dissemination skills were significant to the educational background with 0.07. Specifically, the skills were significant to CAR holders in master's level and master's degree holders with 0.556, and CAR holders in both master's and doctorate levels with 0.57 as shown in Table 12.

This means that CAR holders in master's level, master's degree holders, and CAR holders in doctorate level were better n demonstrating the basic skills required for the publication of research reports and changing the educational practices based on the outcome studies and other researches. This finding implies that the study of Anzaldo and Cudiamat (2019) about research played an important role in education. It enabled teachers to discover what went wrong and what could be done to address classroom problems and issues, and it helped school administrators and education planners to develop capacity building that would help teachers to appreciate more the value of research.

Hence, roles and functions skills were significant to the educational background with 0.027. Specifically, the said skills were significant to CAR holders in master's level and master's degree holders with 0.004 as shown in Table 14.

This means that CAR holders in master's level and master's degree holders were better in engaging activities, in contributing to the development of a body of knowledge relevant to organization, in designing and implementing a series of studies that addresses a significant issue, in writing research funding applications to

major funding bodies, in offering help and support the other researchers, in publishing in major journals, and in contributing to a theory within a particular area of study. This finding implies that the study of Calma (2010) about students and academic staff required the financial support in a range of programs to enhance research skills and develop expertise. However, funding issue is not simply about having little money allocated for research and research training, but funding will continue to put pressure among universities and the government in their mission to develop university research and strengthen research training systems in the Philippines.

Table 13 shows that the respondents' personal attitudes and professional ethics skills were significant to the educational background with regard to their specialization with 0.44.

This means that the specialization of the master teachers was better in demonstrating and appreciating the necessity and value of research for competent educational practice, demonstrating an awareness of and adherence to the ethical principles underpinning research in particular those produced by the DepEd, and designing and implementing research studies that evaluate education practice and service delivery. These findings contradicted the study of Allen and Zhang (2016) which discussed that some preferred for engineering programs because they perceived prestige associated with becoming an engineer and because of their personal curiosity in solving problems and understanding how things work compared to research.

Table 13

Comparison among the level of Research Competencies of the Respondents According to their Educational Background with their Specialization

Group Statistics			
Research Competencies	**Specialization**	**N**	**Mean**
Practical Research Skills	STEM (Science, Technology, Mathematics, Engineering) Courses	51	20.71
	Non-Science and Technology Course	75	19.60
Problem-solving, thinking & Communication Skills	STEM (Science, Technology, Mathematics, Engineering) Courses	51	20.43
	Non-Science and Technology Course	75	20.21
Personal Attitudes & Professional Ethics	STEM (Science, Technology, Mathematics, Engineering) Courses	51	12.43
	Non-Science and Technology Course	75	11.57
Dissemination	STEM (Science, Technology, Mathematics, Engineering) Courses	51	8.18
	Non-Science and Technology Course	75	7.55
Roles and Functions	STEM (Science, Technology, Mathematics, Engineering) Courses	51	22.47
	Non-Science and Technology Course	75	20.77

Independent Samples Test				
	T	**Df**	**Sig. (2-tailed)**	**Evaluation**
Personal Attitudes & Professional Ethics	2.033	124	.044	S

The DepEd argue for the development of the organization through research competencies to prepare for global development. This plan begins by the teachers' research activities as part of the duties of the master teachers to conduct research. Also, it is then attained by the teachers through professional development by attending post graduate studies and by working on their research endeavor as part of the requirements of their further studies.

Table 14

Comparison Among the Level of Research Competencies of the Respondents According to their Educational Background with the Accreditation Level of their School they graduated from

Descriptives			
Research Competencies	**School's Accreditation Level (Based from PAASCU, PACU-COA and ACSCU-AAI accredited Agencies)**	**N**	**Mean**
Practical Research Skills	Level 1 accredited	52	20.52
	Level 2 accredited	25	19.68
	Level 3 accredited	51	19.67
	Total	128	20.02
Problem-solving, thinking and communication skills	Level 1 accredited	52	20.87
	Level 2 accredited	25	19.76
	Level 3 accredited	51	19.96
	Total	128	20.29
Personal Attitudes and professional ethics	Level 1 accredited	52	12.02
	Level 2 accredited	25	11.32
	Level 3 accredited	51	12.02
	Total	128	11.88
Dissemination	Level 1 accredited	52	7.83
	Level 2 accredited	25	7.68
	Level 3 accredited	51	7.75
	Total	128	7.77
Roles and Functions	Level 1 accredited	52	21.54
	Level 2 accredited	25	20.64
	Level 3 accredited	51	21.37
	Total	128	21.30

Table 14 shows that the respondents' level of research competencies was not significant to the educational background with the accreditation level of the school they graduated from.

Level of Research Competencies of Master Teachers According to their Rank/Position. One of the duties of the master teachers' position is to make research work as part of the IPCRF rating of the teachers.

It is gleaned from Table 15 that the respondents' level of research competencies was not significant to their rank/position.

Table 15

Comparison Among the Level of Research Competencies of the Respondents According to their Rank/Position

Group Statistics			
Research Competencies	**Rank/position**	**N**	**Mean**
Practical Research Skills	Master Teacher 1	116	20.05
	Master Teacher 2	12	19.67
Problem-solving, thinking & Communication Skills	Master Teacher 1	116	20.37
	Master Teacher 2	12	19.50
Personal Attitudes & Professional Ethics	Master Teacher 1	116	11.91
	Master Teacher 2	12	11.58
Dissemination	Master Teacher 1	116	7.78
	Master Teacher 2	12	7.67
Roles and Functions	Master Teacher 1	116	21.30
	Master Teacher 2	12	21.25

Level of Research Competencies of Master Teachers According to their Latest Performance Rating. Table 16 shows that the respondents' level of research competencies was not significant to their latest performance rating.

Table 16

Comparison Among the Level of Research Competencies of the Respondents According to Latest Performance Rating

Group Statistics			
Research Competencies	**Performance Rating**	**N**	**Mean**
Practical Research Skills	Outstanding Performance	9	20.00
	Very Satisfactory Performance	118	20.10
Problem-solving, thinking & Communication Skills	Outstanding Performance	9	19.56
	Very Satisfactory Performance	118	20.41
Personal Attitudes & Professional Ethics	Outstanding Performance	9	11.56
	Very Satisfactory Performance	118	11.94
Dissemination	Outstanding Performance	9	7.33
	Very Satisfactory Performance	118	7.83
Roles and Functions	Outstanding Performance	9	19.11
	Very Satisfactory Performance	118	21.56

Level of Research Competencies of Master Teachers According to their Length of Service. It is gleaned from Table 17 that the respondents' level of research competencies was not significant to their length of service.

Table 17

Comparison Among the Level of Research Competencies of the Respondents According to Length of Service

Descriptives			
Research Competencies	**Length of Service (in years)**	**N**	**Mean**
Practical Research Skills	below 10 years	6	20.33
	10-20 years	46	20.59
	above 20 years	76	19.64
	Total	128	20.02
Problem-solving, thinking and communication skills	below 10 years	6	20.50
	10-20 years	46	20.02
	above 20 years	76	20.43
	Total	128	20.29
Personal Attitudes and professional ethics	below 10 years	6	12.50
	10-20 years	46	12.04
	above 20 years	76	11.74
	Total	128	11.88
Dissemination	below 10 years	6	8.33
	10-20 years	46	8.00
	above 20 years	76	7.58
	Total	128	7.77
Roles and Functions	below 10 years	6	22.67
	10-20 years	46	21.74
	above 20 years	76	20.92
	Total	128	21.30

Level of Research Competencies of Master Teachers According to their Research-related Trainings. Table 18 shows that the respondents' roles and function skills were significant to the field/type of training attended with 0.14.

Table 18

Comparison Among the Level of Research Competencies of the Respondents According to Field/Type of Training Program

Group Statistics			
Research Competencies	**Field/Type**	**N**	**Mean**
Practical Research Skills	Research Related	23	19.00
Problem-solving, thinking & Communication Skills	Research Related	23	19.26
Personal Attitudes & Professional Ethics	Research Related	23	11.39
Dissemination	Research Related	23	7.35
Roles and Functions	Research Related	23	18.74

Independent Samples Test				
	T	Df	Sig. (2-tailed)	Evaluation
Roles and Functions	2.485	126	.014	S

This means that the field/type of trainings attended by the respondents was better in engaging in activities that contribute to the development of a body of knowledge relevant to organization, designing and implementing a series of studies that addresses a significant issue, writing research funding applications to major

funding bodies, offering help and support to other researchers, publishing in major journals, and contributing to a theory within a particular area of study. This finding contradicted with the study of Calma (2009) which presented that academic staff and research higher degree students were not getting enough support for research trainings which, then, impacted their research performance.

Table 19 shows that the respondents' level of research competencies was not significant to the period and duration of training programs attended.

Table 19

Comparison Among the Level of Research Competencies of the Respondents According to Period and Duration of the Training Program

Group Statistics			
Research Competencies	**Number of Days of Training**	**N**	**Mean**
Practical Research Skills	1 - 5 days	23	18.76
Problem-solving, thinking & Communication Skills	1 - 5 days	23	19.12
Personal Attitudes & Professional Ethics	1 - 5 days	23	11.29
Dissemination	1 - 5 days	23	7.12
Roles and Functions	1 - 5 days	23	19.24

Level of Research Competencies of Master Teachers According to their Research Undertaking. Table 20 shows that the respondents' level of research competencies was not significant to the number of researches conducted.

Table 20

Comparison Among the Level of Research Competencies of the Respondent According to the Number of Research Conducted

Descriptives			
Research Competencies	**Number of Research Conducted**	**N**	**Mean**
Practical Research Skills	1 research	22	18.73
	2 researches	9	18.11
	3 researches	2	20.00
Problem-solving, thinking and communication skills	1 research	22	19.27
	2 researches	9	19.89
	3 researches	2	21.50
Personal Attitudes and professional ethics	1 research	22	11.73
	2 researches	9	12.11
	3 researches	2	12.00
Dissemination	1 research	22	7.45
	2 researches	9	7.33
	3 researches	2	8.00
Roles and Functions	1 research	22	19.14
	2 researches	9	21.44
	3 researches	2	21.00

It is gleaned from Table 21 that the respondents' level of research competencies was not significant to their role as a researcher in the research they conducted.

Table 21

Comparison Among the Level of Research Competencies of the Respondents According to the Role of the Respondents on the Research Conducted

Group Statistics			
Research Competencies	**Role**	**N**	**Mean**
Practical Research Skills	Study Leader	93	20.39
Problem-solving, thinking & Communication Skills	Study Leader	93	20.49
Personal Attitudes & Professional Ethics	Study Leader	93	11.88
Dissemination	Study Leader	93	7.87
Roles and Functions	Study Leader	93	21.78

Table 22 shows that the respondents' level of research competencies was not significant to the amount of fund used in the research.

Table 22

Comparison Among the Level of Research Competencies of the Respondents According to the Amount of Fund on the Research

Group Statistics			
Research Competencies	Funding	N	Mean
Practical Research Skills	with funding	26	18.18
Problem-solving, thinking & Communication Skills	with funding	26	19.29
Personal Attitudes & Professional Ethics	with funding	26	11.59
Dissemination	with funding	26	7.41
Roles and Functions	with funding	26	19.18

It is gleaned from Table 23 that the respondents' level of research competencies was not significant to the source of fund used in the research.

Table 23

Comparison Among the Level of Research Competencies of the Respondents According to Source of Fund

Descriptives			
Research Competencies	**Source**	**N**	**Mean**
Practical Research Skills	Personal	24	19.00
	External	2	19.50
Problem-solving, thinking and communication skills	Personal	24	20.13
	External	2	18.00
Personal Attitudes and professional ethics	Personal	24	12.17
	External	2	10.00
Dissemination	Personal	24	7.75
	External	2	7.00
Roles and Functions	Personal	24	20.38
	External	2	17.00

Table 24 shows that the respondents' level of research competencies was not significant to the duration of fund used in the research.

Table 24

Comparison Among the Level of Research Competencies of the Respondents According to the Duration of Fund

Group Statistics			
Research Competencies	**Duration**	**N**	**Mean**
Practical Research Skills	6 months and above	6	19.50
Problem-solving, thinking & Communication Skills	6 months and above	6	19.67
Personal Attitudes & Professional Ethics	6 months and above	6	12.33
Dissemination	6 months and above	6	7.83

Level of Research Competencies of Master Teachers According to their Individual Innovativeness. Table 25 shows that the respondents' level of research competencies was significant to individual innovativeness with 0.19. Specifically, the individual innovativeness was significant to early adopters and late majority, and to early majority and late majority.

Table 25

Comparison Among the Level of Research Competencies of the Respondents in Terms of their Level of Individual Innovativeness

Descriptives

Research Competency	School's Accreditation Level	N	Mean
Practical Research Skills	Early Adjuster	17	20.53
	Early Majority	102	20.25
	Late Majority	9	16.33
	Total	128	20.02

ANOVA

Research Competency	Sources of Variation	Sum of Squares	Df	Mean Square	F	Sig.	Evaluation
Practical Research Skills	Between Groups	132.4	2	66.18	4.112	.019	S
	Within Groups	2011.6	125	16.09			
	Total	2144.0	127				

Post Hoc Analysis (Tukey HSD)

Research Competency	Pair	Mean Difference	Sig.	Evaluation
Practical Research Skills	Early Adopters & Late Majority	4.2	.03	S
	Early majority & Late majority	3.92	.02	S

This means that early adjusters in the individual innovativeness were better in finding and using resources, using the library and information technology effectively, recognizing and knowing when to use primary and secondary resources, observing and recording behavior, and demonstrating basic computer competency. This finding agrees with the study of Avidov-Ungar and Eshet-Alkalai that claimed that the

adoption and implementation of change involves innovation technologies as a personal process, unique to every teacher and related to his or her personal beliefs and motivations.

Attitudes of Respondents with Regard to Doing Research

Table 26 shows the data of the attitude of the master teachers with regard to doing research. It can be gleaned from the table that majority of them have high positive attitude with 94 or 73.44 percent.

Table 26

Attitude of the Respondents in Terms of Doing Research

Level of Individual Innovativeness	f	Percent
High positive Attitude	94	73.44
Positive Attitude	32	25.00
Negative Attitude	2	1.56
Total	**128**	**100.00**

This means that the attitude is important in doing research. This finding is implied from the study of van der Linden et al. (2012) which revealed that there was a positive significant relationship between attitude toward research and students' research self-efficacy.

Comparison on the Attitude of the Respondents with regard to Doing Research

Comparison among the Master Teacher-respondents' Attitude with Regard to Doing Research According to their Age. Table 27 shows that the respondents' age was not significant to their attitude of doing research.

Table 27

Comparison Among the Respondents' Attitude with Regard to Doing Research According to their Age

Descriptives		
Age Bracket	**N**	**Mean**
35 years and below	9	37.11
36-45 years	31	36.87
46 years and above	88	36.23
Total	**128**	**36.45**

Comparison among the Master Teacher-respondents' Attitude with Regard to Doing Research According to Educational Background. Table 28 shows that the respondents' attitude was significant to their being baccalaureate and master's degree holders with 0.42.

This means that baccalaureate and master's degree holders had better attitude in doing research. This contradicts with the study of Basilio and Bueno that majority of the MTs earned MA/MS units, but MTs had average skills in

searching, and in using and evaluating information including their awareness on the various sources of information. They had fair skills in designing experimental study as well as in selecting and developing research instruments, in choosing appropriate statistical tools, and in preparing manuscript for publication.

Table 28

Comparison Among the Respondents' Attitude with Regard to Doing Research According to their Educational Background

Descriptives		
Educational Background	**N**	**Mean**
Baccalaureate Degree	26	34.77
CAR in Master's Level	43	36.26
Master's Degree Holder	50	37.30
CAR in Doctorate Level	6	38.33
Doctoral Degree Holder	3	35.67
Total	128	36.45

ANOVA

Sources of variation	Sum of Squares	Df	Mean Square	f	Sig.	Evaluation
Between Groups	134.316	4	33.579	2.188	.074	S
Within Groups	1887.301	123	15.344			
Total	2021.617	127				

Post Hoc Analysis (Tukey HSD)			
Pair	**Mean Difference**	**Sig.**	**Evaluation**
Baccalaureate & Master's Degree Holder	-0.269	.042	S

It is gleaned from Table 29 that the respondents' attitude was significant to Level 2 and Level 3 accredited schools in terms of school's accreditation with 0.16.

Table 29

Comparison Among the Respondents' Attitude with Regard to Doing Research According to their Educational Background (School Graduated)

Descriptives		
School's Accreditation Level (Based from PAASCU, PACU-COA and ACSCU-AAI accredited Agencies)	**N**	**Mean**
Level 1 accredited	52	36.62
Level 2 accredited	25	34.76
Level 3 accredited	51	37.10
Total	128	36.45

ANOVA

Sources of variation	Sum of Squares	Df	Mean Square	F	Sig.	Evaluation
Between Groups	94.240	2	47.120	3.056	.041	S
Within Groups	1927.377	125	15.419			
Total	2021.617	127				

Post Hoc Analysis (Tukey HSD)

Pair	Mean Difference	Sig.	Evaluation
Level 2 & Level 3	-2.34	.016	S

This means that attitude of respondents, those who came from Level 2 and Level 3 accredited schools, were better in doing research. This finding contradicts

with the study of Styck (2012) which stated that there was no significant difference that emerged between accredited and non-accredited programs on any of the training characteristics theorized as important for working with diverse student populations and in working with research endeavors.

Comparison among the Master Teacher-respondents' Attitude with Regard to Doing Research According to their Length of Service. Table 30 shows that the respondents' length of service was not significant to their attitude with regard to doing research.

Table 30

Comparison Among the Respondents' Attitude with Regard to Doing Research According to their Length of Service

Descriptives		
Length of Service (in years)	**N**	**Mean**
below 10 years	6	37.67
10-20 years	46	37.39
above 20 years	76	35.78
Total	**128**	**36.45**

Comparison among the Master Teacher-respondents' Attitude with Regard to Doing Research According to Research-related Trainings. It is gleaned from Table 31 that the respondents' number of researches conducted was not significant to their attitude with regard to doing research.

Table 31

Comparison Among the Respondents' Attitude with Regard to Doing Research According to the Number of Research Conducted

Descriptives		
Age Bracket	**N**	**Mean**
Only 1 Research	22	37.00
2 Researches	9	36.22
3 Researches	2	38.50

Comparison among the Master Teacher-respondents' Attitude with Regard to their Individual Innovativeness. It is gleaned from Table 32 that the respondents' individual innovativeness was significant to the attitude with 0.05. Specifically, the individual innovativeness was significant to early majority and late majority.

This means that early adopters in individual innovativeness had better attitude in doing research. This finding is justified by the study of Avidov-Ungar and Eshet-Alkalai (2011) about teachers' attitudes toward change which was found to be positive, and the changes were found to be the behavioral attitudes that clearly indicated the readiness of teachers who participated in the implementation of the project to actively work for creating change, and the adoption and implementation of change that involved innovation technologies as a personal process, unique to every teacher and related to his or her personal beliefs and motivations.

Table 32

Comparison Among the Respondents' Attitude with Regard to Doing Research According to their Individual Innovativeness

Descriptives		
Level of Innovativeness	**N**	**Mean**
Early Adopters	17	36.82
Early Majority	102	36.66
Late Majority	9	33.33
Total	128	36.45

ANOVA

Sources of variation	Sum of Squares	Df	Mean Square	F	Sig.	Evaluation
Between Groups	94.2	2	47.1	3.05	0.05	S
Within Groups	1927.5	125	15.4			
Total	2021.6	127				

Post Hoc Analysis (Tukey HSD)			
Pair	**Mean Difference**	**Sig.**	**Evaluation**
Early Majority & Late Majority	3.32	.04	S

Comparison among the Master Teacher - respondents' Attitude with Regard to Doing Research According According their Sex, Educational Background on their Specialization, Rank/Position, Performance Rating, Field/Type of Training, Period/ Duration of Training, Role in the Research Conducted, Amount, Source and Duration of Funding

Table 33 shows that the respondents' sex category, educational background on their specialization, rank/position, performance rating, field of

training, period/duration of training, role in the research conducted, amount, source, and duration of funding had no significant difference to the attitude.

Table 33

Comparison Among the Respondents' Attitude with Regard to Doing Research According to their Sex Category, Educational, Background (Specialization), Rank/ Position, Performance rating, Field/Type of Training, Period/Duration of Training, Role on the Research Conducted, and Amount, Source and Duration of Funding

Profile	Category	N	Mean	df	Evaluation
Sex category	Female	106	36.49	126	NS
	Male	22	36.23		
Educ'l Background (Specialization)	S & T	51	36.88	124	NS
	Non-S & T	75	36.36		
Rank/Position	Master Teacher 1	116	36.35	126	NS
	Master Teacher 2	12	37.33		
Performance Rating	Outstanding	9	36.89	125	NS
	Very Satisfactory	118	36.41		
Field/Type of Training Program	None	105	36.42	126	NS
	Research	23	36.57		
Period/Duration	None	105	36.39	126	NS
	1-5 days	23	37.67		
Role on the Research Conducted	None	93	36.37	126	NS
	Study Leader	35	36.66		
Amount of Funding	None	111	36.45	126	NS
	with funding	17	36.41		
Source of Fund	None	102	36.33	124	NS
	Personal	24	37.17		
Duration of Fund	None	122	36.39	126	NS
	6 months and above	6	37.67		

Significant Relationship between the Level of Research Competencies of the Master Teachers and their Attitude with Regard to Doing Research

This portion discusses the analysis undertaken in the relationship between the level of research competencies domains and the attitude of master teacher-respondents.

It is gleaned from Table 34 that the respondents' level of research competencies had significant relationship to their attitude. The respondents' level of research competencies varied with the attitudes. The higher the research competencies, the higher the positive attitude.

Table 34

Relationship Between the Respondents' Level of Research Competencies and their Attitude with Regard to Doing Research

Research Competencies	Regression Coefficient	SE	p-value
(Constant)	2.852	0.216	0.000
Practical Research Skills	0.164	0.041	0.000
Problem-Solving, Thinking and Communication Skills	0.173	0.050	0.001
Personal Attitudes and Professional Ethics	0.176	0.043	0.000
Dissemination	0.110	0.034	0.002
Roles and Functions	0.139	0.036	0.000

Regression Coefficient is Unstandardized. R-square = .147, F = 4.189, p-value = 0.002

This means that all of respondents' level of research competencies had relation to their attitude in doing research. This finding is implied from the study

of van der Linden et al. (2012) which elucidated that the relationship between research anxiety and research self-efficacy was negative.

Challenges Encountered by Master Teachers in Doing Research

Table 35 shows that majority of the respondents agreed that they encountered challenges in doing research.

This means that respondents encountered problems like considering that doing research is time consuming. They were so busy with their own teaching practice and personal life to do research. They had heavy teaching load that affected their practice of research. Some master teachers got promoted even without research, so why indulged in research work, when there was a shortage of trainings and seminars on research activities. There was lack of a clear role of the teachers in the school to conduct research. They had no enough knowledge how to do research, and they had no research funding. This finding is implied from the study of Ulla (2018) about the teachers' challenges in conducting research which included the lack of financial support, heavy teaching load, lack of research skills and knowledge, and lack of research resources. Teachers needed support not only financially, but also morally, to uplift the motivation of the teachers to continue doing research. The school should send teachers to research training and workshops to gain the necessary skills and knowledge. Research allowances should be given to teachers so that they would be

motivated to conduct research, and teaching workloads should be reduced so that teachers would have more time to do research.

Table 35

Challenges Encountered by Respondents in Doing Research

	Statements	Xw/Interpretation	
1.	I do not have enough knowledge how to do research.	2.58	A
2.	I find doing research as time consuming.	3.16	A
3.	I am so busy with my own teaching practice and personal life to do research.	3.11	A
4.	I do not have much support from the school to do research.	2.26	D
5.	I have no interest to do research at all.	2.25	D
6.	I am not motivated to do research.	2.36	D
7.	I have a low proficiency in English that hinders me to do research.	2.29	D
8.	I do not see the importance of doing research in my professional life.	1.80	D
9.	I have no access on materials (journals, research books, research reports and etc.).	2.37	D
10.	There is a shortage of training and seminar on research activities.	2.70	A
11.	I don't have enough knowledge on the research funding.	2.58	A
12.	There is lack of recognitions to conducted research activities.	2.45	D
13.	Heavy teaching load affects the practice of research.	2.94	A
14.	There is lack of clear role of teachers in the school to conduct research.	2.64	A
15.	Some Master Teachers get promoted even without research.	2.78	A
	Grand Total	38.27	-
	Grand Mean	2.55	A

Legend:

3.25 - 4.00 Totally Agree (TA)
2.50 - 3.24 Agree (A)
1.75 - 2.49 Disagree (D)
1.00 - 1.74 Totally Disagree (TD)

Chapter 5

SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This chapter presents the summary of findings, conclusions that were derived from the findings, and the recommendations based on the conclusion drawn.

Summary of Findings

This section of the chapter discusses the major findings of the study as follows:

1. There were 31 master teachers or 24.22 percent ranging from 50-54 years old, while seven master teachers or 5.47 percent were the least ranging from 30-34 years old. The average age of the master teacher was 48.79 years old, and majority of the master teacher were females or 82.81 percent. Most of the master teacher were master's degree holders and there were 50 or 39.1 percent of them. And majority of them were non-science and technology majors' majors in English, Filipino, Araling Panlipunan, etc. The master teachers graduated from Level 1 accredited schools with 52 or 40.63 percent of them. And, majority of the master teachers were in Master Teacher 1 position with 116 or 90.63 percent of them, and the remaining 12 or 9.38 percent were in Master Teacher 2.

2. Majority of the master teacher or 92.19 percent of them obtained "very satisfactory rating". The highest number of master teachers were ranging

22-25 years and 14-17 years in the service with 16.41 percent. The average length of service of the master teachers were 22.35 years in the service. And, there were only 23 master teachers or 17.97 percent who were attending trainings, while the training attended by the master teachers lasted for 1-5 days. Other master teachers were not attending research-related trainings. And, there were 1.56 percent of the master teachers who conducted three researches, 8.59 percent who conducted two researches, and 19.75 percent conducted one research. The remaining master teachers were not conducting research at all.

3. In the conduct of research there were 27.34 percent who served as a study leader and 1.56 percent served as the member in conducting research work. The remaining master teachers were not conducting research. The research works that were funded 5,000.00 pesos were 17.19 percent, and 3.13 percent research works that were funded with 7,415.00 pesos. The remaining master teachers were not conducting research. Also, there were 18.75 percent or research works which fund was taken from personal expenses, and 1.56 percent were taken from external sources in funding the research work. The remaining master teachers were not conducting research. And there were 1.56 percent of the funded researches that were given six months and above for the duration of the fund, while the remaining respondents were not conducting research.

4. Majority of the master teachers were high in early majority with 79.69 percent, and 13.28 percent were early adopters. While 7.03 percent of master teachers were considered low in early majority. There were 35.16 percent

of the master teachers who were above-average, while 1.56 percent of them had low-level skills in terms of their practical research skills. There were 42.97 percent of the master teachers who were above average, while 3.13 percent of them had low level skills in terms of their problem-solving, thinking and communication skills. There were 39.06 percent of the master teachers who were above average, while 0.78 percent of them had low level skills in terms of their personal attitude and professional ethics skill. Also, there were 36.72 percent of the master teachers who were excellent, while 1.56 percent of them had low level skills in terms of their dissemination skills. And, there were 41.41 percent of the master teachers who were average, while 1.56 percent of them had low level skills in terms of their roles and function skills.

5. Master teachers' Problem Solving and Communication Skills were significant to the age of master teachers with 0.04, specifically for 36-45 years old, and 46 years old and above with 0.013. Master teachers' practical research skills were significant to the educational background of the respondents with 0.44, specifically, significant to CAR holders in master's level and master's degree holders with 0.014, and master's degree holders and doctoral degree holders with 0.51. Master teachers' personal attitude and professional ethics skills were significant to the educational background with 0.36, specifically, significant to CAR holders in master's level and master's degree holders with 0.10, and CAR holders in master's level and in doctorate level with 0.40. Also, Master teachers' dissemination skills were significant to the educational background with 0.07,

specifically, significant to CAR holders in master's level and master's degree holders with 0.556, and CAR holders in master's level and in doctorate level with 0.57. And, Master teachers' roles and functions skills were significant to the educational background with 0.027, specifically, significant to CAR holders in master's level and master's degree holders with 0.004. There personal attitudes and professional ethics skills were significant to the educational background with regard to their specialization with 0.44. Also, roles and function skills were significant to the field/type of training attended with 0.14. And Master teachers' level of research competencies were significant to individual innovativeness with 0.19, specifically significant to early adopters and late majority, and early majority and late majority.

6. Master teachers' level of research competencies was not significant to the sex category, educational background with the accreditation level of the school they graduated from, rank/position, latest performance rating, length of service, period and duration of training programs attended, number of researches conducted, role of the researcher in the research conducted, amount of fund used in the research, source of fund used in the research, and duration of fund used in the research.

7. Majority of the master teachers had high positive attitude or 73.44 percent with regard to doing research.

8. Master teachers' attitude was significant to their educational attainment being baccalaureate and master's degree holders with 0.42. And,

Master teachers' attitude was significant to level 2 and level 3 accredited schools in terms of school's accreditation with 0.16. There individual innovativeness was significant to the attitude with 0.05, specifically significant to early majority and late majority.

9. Master teachers' age, length of service, researches conducted, sex category, educational background on their specialization, rank/position, performance rating, field of training, period/duration of training, role on the research conducted, amount, source, and duration of funding was not significant to the attitude.

10. Master teachers' level of research competencies had significant relationship to the attitude. The respondents' level of research competencies varied with the attitudes.

11. Majority of the master teachers agreed that they encountered challenges in doing research.

Conclusions

From the foregoing findings, the following conclusions were drawn:

1. Majority of the master teachers were females. And, most of the master teachers were master's degree holders, graduated as non-science and technology majors, and graduated from Level 1 accredited schools.

2. Majority of the master teachers were in Master Teacher 1 position with "very satisfactory rating" in their performance. The average length of

service of the master teachers were 22.35 years in the service and majority of the master teachers were not attending research-related trainings and not conducting research.

3. Majority of the master teachers were high in early majority on their individual innovativeness. And, Master teachers are above-average in practical research skills, problem-solving, thinking and communication skills, and personal attitude and professional ethics skills. They were excellent in dissemination skills and average in roles and function skills.

4. Problem Solving and Communication skills was significant to the age of master teachers. And, Practical research skills, professional ethics skills, dissemination skills and roles and function skills were significant to the educational background of the respondents. Specifically, CAR in master's level, master degree holders, CAR in doctorate level, and doctorate degree holder were significant to the level of research competencies. Master teachers' personal attitudes and professional ethics skills were significant to the educational background with regard to their specialization, and roles and function skills were significant to the field/type of training attended.

5. Master teachers' level of research competencies were significant to individual innovativeness. Specifically, early adopters and late majority, and early majority and late majority.

6. Majority of the master teacher had high positive attitude in doing research. Being baccalaureate and master's degree holders of the master teachers

was significant to the attitude of doing research, and also to having been graduated from Level 2 and Level 3 accredited schools.

7. Master teachers' attitudes were significant to individual innovativeness, specifically to early majority and late majority.

8. Master teachers' level of research competencies had significant relationship to the attitude. And, majority of the master teachers encountered challenges in doing research.

Recommendations

The following recommendations were offered based on the results and foregoing conclusions reached by this study.

1. The DepEd Samar Division shall oblige master teachers regardless of age and being non-science and technology majors to conduct research. Also, the school authorities shall give incentive package to research-related activities of MTs to include training in research writing and publications.

2. Mandatory among master teachers is to attend graduate and postgraduate education, specifically in accredited colleges and universities to ensure the quality of education earned, and to attend research-related trainings and conferences to improve their level of research competencies.

3. Master teachers shall attend research capability training programs consisting of various levels of lectures, hands-on workshop, and writing research

articles for colloquium to promote higher or advanced skills of individual innovativeness and gain confidence in making research work.

4. The implementers of DepEd Samar Division, based on the inputs of this study, shall conduct an intervention scheme for higher research participation by master teachers.

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APPENDICES

APPENDIX A

LETTER TO THE PRINCIPAL OF SAMAR NATIONAL HIGH SCHOOL

Republic of the Philippines
Samar State University
COLLEGE OF GRADUATE STUDIES
Catbalogan City
Telephone Numbers: (055)-543-83-94/(055)-251-21-39

Website: www.ssu.edu.ph

August 2, 2019

RUTH D. CABANGANAN
Principal IV
Samar National High School
Catbalogan City, Samar

Dear Madam:

Warmest greetings!

I would like to ask your permission to allow me to conduct a survey among the Master Teachers in your school. This is in view of my dissertation entitled, "Research Competencies and Attitudes of Master Teachers". I am going to conduct a pilot study among master teachers of Samar National School (SNS), Catbalogan City. Samar where the dry-run test be conducted. The purpose of conducting the dry-run is to ensure the reliability and validity of the instrument to be used in the study. Attached herewith is the survey questionnaire for this study.

This survey would last only about 10-15 minutes and would be arranged at a time convenient to the Master Teacher's schedule (e.g. during break). Participation in the survey is entirely voluntary and there are no known or anticipated risks to participation in this study. All information provided will be kept with utmost confidentiality and would be used only for academic purposes. The name of the respondents and the name of your school will not appear in my dissertation or publication resulting from this study unless agreed to.

After data have been analyzed, you will receive a copy of the executive summary. should you be interested in greater detail, an electronic copy (e.g. PDF) of the entire dissertation paper can be made available to you.

Your approval to conduct this study will be greatly appreciated. Thank you in advance for your interest and assistance with this research.

Sincerely yours,

MICHAEL P. MABULAC
Doctor of Philosophy
Major in Educational Management

Approved by;

RUTH D. CABANGANAN
Principal IV
Samar National School

ACKNOWLEDGEMENT (Researcher's Copy)

_____	_____
Printed Name of School Head	Signature of School Head
_____	_____
Printed Name of Master Teacher	Signature of Master Teacher
_____	_____
Date Availability	Time Availability

APPENDIX B

LETTER TO THE SCHOOLS DIVISION SUPERINTENDENT

Republic of the Philippines
Department of Education
Region VIII
Division of Samar

July 30, 2019

_____
_____
_____
_____

Dear Sir/Madam:

Warmest greetings!

I would like to ask your permission to allow me to conduct a survey among the Master Teachers in your school. This is in view of my dissertation, entitled, "Research Competencies and Attitude of Master Teachers in Samar Division". I am conducting a survey among secondary public and private schools in the Province of Samar. Attached herewith is the survey questionnaire for this study.

This survey would last only about 10-15 minutes and would be arranged at a time convenient to the Master Teacher's schedule (e.g. during break). Participation in the survey is entirely voluntary and there are no known or anticipated risks to participation in this study. All information provided will be kept with utmost confidentiality and would be used only for academic purposes. The name of the respondents and the name of your school will not appear in my dissertation or publication resulting from this study unless agreed to.

After data have been analyzed, you will receive a copy of the executive summary. Should you be interested in greater detail, an electronic copy (e.g. PDF) of the entire dissertation paper can be made available to you.

Your approval to conduct this study will be greatly appreciated. Thank you in advance for your interest and assistance with this research.

Sincerely yours,

MICHAEL P. MABULAC
Doctor of Philosophy
Major in Educational Management

Noted by:

CLARITA M. MENDA
Chief, School of Good Governance and Operation
Samar Division

Approved by;

MARIZA S. MAGAN., Ed.D., CESO V
School Division Superintendent
Samar Division

ACKNOWLEDGEMENT (Researcher's Copy)

_____	_____
Printed Name of School Head	Signature of School Head
_____	_____
Printed Name of Master Teacher	Signature of Master Teacher
_____	_____
Date Availability	Time Availability

APPENDIX C

DRY-RUN SURVEY QUESTIONNAIRE

A SURVEY QUESTIONNAIRE ON THE RESEARCH COMPETENCIES AND ATTITUDE OF MASTER TEACHER

PART I. RESPONDENT'S PROFILE

Directions: Please provide the information needed by writing on the appropriate space. Please do not leave any item unanswered.

Name: _____ **(Optional):**
School: _____ **Age:** _____ **Sex:** _____
Educational Background: (Please Specify) _____

Degree	Specialization	School Graduated
Doctoral Degree Holder		
CAR in Doctorate Level		
Master's Degree Holder		
CAR in Master's Level		
Baccalaureate Degree		

Position/Rank: (Please Check and specify other designation)

( ) Master Teacher I, please specify other designation _____;
( ) Master Teacher II, please specify other designation _____;
( ) Master Teacher III, please specify other designation _____;

Latest Performance Rating: _____

Length of Service (number of years in DepEd): _____

Research Related Trainings Attended (for the last five years)

Field of Training Program	Type of Training Program	Period of the Training Program Duration

Researches Undertakings (for the last five years)

Directions: Please write the researches you have conducted. Indicate your answer on the corresponding column. Write **None** if you have no research conducted.

Title of Research	Number of Research Conducted	Role of the Researcher on the Research Conducted	Funding of Research Conducted	
1.			Amount of Fund	
			Source of Fund	
			Duration of Fund	
2.			Amount of Fund	
			Source of Fund	
			Duration of Fund	
3.			Amount of Fund	
			Source of Fund	
			Duration of Fund	
			Amount of Fund	
			Source of Fund	
			Duration of Fund	

Title of Research	Number of Research Conducted	Role of the Researcher on the Research Conducted	Funding of Research Conducted	
5.			Amount of Fund	
			Source of Fund	
			Duration of Fund	

PART II. INDIVIDUAL INNOVATIVENESS

Directions: Using the scale below, check the number that corresponds to what you perceive on your Individual Innovativeness in making research. Your responses have no right or wrong answer.

5- Strongly Agree (SA), 4- Agree (A), 3- Neutral (N), 2- Disagree (D), Strongly Disagree (SD)

STATEMENTS	5 (SA)	4 (A)	3 (N)	2 (D)	1 (SD)
1. My peers often ask me for advice or information.					
2. I enjoy trying new ideas.					
3. I seek out new ways to do things.					
4. I am generally cautions about accepting new ideas.					
5. I frequently improvise methods for solving a problem when an answer is not apparent.					
6. I am suspicious of new inventions and new ways of thinking.					
7. I rarely trust new ideas until I can see whether the vast majority of people around me accept them.					
8. I feel that I am an influential member of my peer group.					
9. I consider myself to be creative and original in my thinking and behavior.					
10. I am aware that I am usually one of the last people in my group to accept something new.					
11. I am an inventive kind of person.					

STATEMENTS	5 (SA)	4 (A)	3 (N)	2 (D)	1 (SD)
12. I enjoy taking part in the leadership responsibilities of the group I belong to.					
13. I am reluctant about adopting new ways of doing things until I see them working for people around me.					
14. I find it stimulating to be original in my thinking and behavior.					
15. I tend to feel that the old way of living and doing things is the best way.					
16. I am challenged by ambiguities and unsolved problems.					
17. I must see other people using new innovations before I will consider them.					
18. I am receptive to new ideas.					
19. I am challenged by unanswered questions.					
20. I often find myself skeptical of new ideas.					

PART III. RESEARCH COMPETENCIES

Directions: Using the scale below, check the number that corresponds to what you perceive on the level of your research competencies. Your responses in this area would be the basis in the development of a research training.

5- Strongly Agree (SA), 4- Agree (A), 3- Neutral (N), 2- Disagree (D), Strongly Disagree (SD)

STATEMENTS	5 (SA)	4 (A)	3 (N)	2 (D)	1 (SD)
A. Practical Skills					
1. Finding and use of Resources.					
2. Using the library and Information technology effectively.					
3. Recognizing and knowing when to use primary and secondary resources.					
4. Observe and record behavior.					
5. Demonstrate basic computer competency.					
B. Problem-Solving, Thinking and Communication Skills.					
6. Understand the difference between subjective and objective information.					

STATEMENTS	5 (SA)	4 (A)	3 (N)	2 (D)	1 (SD)
7. Recognize when information provided is sufficient and when it is not.					
8. Evaluate when the basis for conclusions is laid out completely and clearly.					
9. Generate research questions by recognizing gaps in knowledge.					
10. Use oral and written communication to express ideas effectively.					
C. Personal Attitudes and Professional Ethics.					
11. Demonstrate an appreciation of the necessity and value of research for competent research practice.					
12. Demonstrate an awareness of and adherence to the ethical principles underpinning research activities.					
13. Design and implement research studies.					
D. Dissemination					
14. Demonstrate the basic skills required for the publication of research reports.					
15. Change the DepEd practices based on the outcome studies and other research.					
E. Roles and Functions					
16. Engage in activities that contribute to the development of a body of knowledge.					
17. Design and implement a series of studies that address a significant issue.					
18. Write research funding applications to major funding bodies.					
19. Offer help and support the other researchers.					
20. Publish in major journals.					
21. Contribute to theory within a particular area of study.					

PART IV: ATTITUDE OF MASTER TEACHERS TOWARDS CONDUCTING RESEARCH

Directions: Check the number that corresponds to what you think in conducting Action Research using the scale below.

4- Totally Agree (TA), 3- Agree (A), 2- Disagree (D), Totally Disagree (TD)

STATEMENT	4 (TA)	3 (A)	2 (D)	1 (TD)
1. Doing research is valuable to the teaching and learning process for me as a teacher.				
2. Doing research is valuable to the teaching and learning process for my students.				
3. Doing research will positively impact my students' learning.				
4. Doing research project will positively impact my teaching.				
5. I view myself as a teacher-researcher.				
6. Doing research will develop and enhance my skills professionally.				
7. Doing research encourages critical self-reflection.				
8. Doing research engages teachers into a more systematic examination of instruction or teaching practice.				
9. Doing research enables teachers to examine and explore classroom and school problems and their solutions.				
10. Doing research helps teachers to acquire new knowledge for classroom teaching.				

PART IV: CHALLENGES FACED BY MASTER TEACHERS IN CODUCTING ACTION RESEARCH

Directions: Check the number that corresponds to the challenges you faced towards conducting Action Research using the scale below.

4- Totally Agree (TA), 3- Agree (A), 2- Disagree (D), Totally Disagree (TD)

STATEMENT	4 (TA)	3 (A)	2 (D)	1 (TD)
1. I do not have enough knowledge how to do research.				
2. I find doing research as time consuming.				
3. I am so busy with my own teaching practice and personal life to do research.				
4. I do not have much support from the school to do research.				
5. I have no interest to do research at all.				
6. I am not motivated to do research.				
7. I have a low proficiency in English that hinders me to do research.				
8. I do not see the importance of doing research in my professional life.				
9. I have no access on materials (journals, research books, research reports and etc.).				
10. There is a shortage of training and seminar on research activities.				
11. I don't have enough knowledge on the research funding.				
12. There is lack of recognitions to conducted research activities.				
13. Heavy teaching load affects the practice of research.				
14. There is lack of clear role of teachers in the school to conduct research.				
15. Some Master Teachers get promoted even without research.				

Comments / Recommendation of the respondents to the questionnaires:

_____

_____

_____

APPENDIX D

SURVEY QUESTIONNAIRE

A SURVEY QUESTIONNAIRE ON THE RESEARCH COMPETENCIES AND ATTITUDE OF MASTER TEACHER IN SAMAR DIVISION

PART I. RESPONDENT'S PROFILE

Directions: Please provide the information needed by writing on the appropriate space. **Please do not leave any item unanswered.**

Name: _____**(Optional):**
School: _____ **Age:** _____ **Sex:** _____
Educational Background: (Please Specify)_____

Degree	Specialization	School Graduated
Doctoral Degree Holder		
CAR in Doctorate Level		
Master's Degree Holder		
CAR in Master's Level		
Baccalaureate Degree		

Position/Rank: (Please Check and specify other designation)
( ) Master Teacher I, please specify other designation _____;
( ) Master Teacher II, please specify other designation _____;
( ) Master Teacher III, please specify other designation _____;

Latest Performance Rating: _____

Length of Service (number of years in DepEd): _____

Research Related Trainings Attended (for the last five years)

Field of Training Program	Type of Training Program	Period of the Training Program Duration

Researches Undertakings (for the last five years)

Directions: Please write the researches you have conducted. Indicate your answer on the corresponding column. Write **None** if you have no research conducted.

Title of Research	Number of Research Conducted	Role of the Researcher on the Research Conducted	Funding of Research Conducted	
1.			Amount of Fund	
			Source of Fund	
			Duration of Fund	
2.			Amount of Fund	
			Source of Fund	
			Duration of Fund	
3.			Amount of Fund	
			Source of Fund	
			Duration of Fund	
4.			Amount of Fund	
			Source of Fund	
			Duration of Fund	
5.			Amount of Fund	
			Source of Fund	
			Duration of Fund	

PART II. INDIVIDUAL INNOVATIVENESS

Directions: Using the scale below, check the number that corresponds to what you perceive on your Individual Innovativeness in making research. Your responses have no right or wrong answer.

5- Strongly Agree (SA), 4- Agree (A), 3- Neutral (N), 2- Disagree (D), Strongly Disagree (SD)

STATEMENTS	5 (SA)	4 (A)	3 (N)	2 (D)	1 (SD)
21. My peers often ask me for advice or information.					
22. I enjoy trying new ideas.					
23. I seek out new ways to do things.					
24. I am generally cautions about accepting new ideas.					
25. I frequently improvise methods for solving a problem when an answer is not apparent.					
26. I am suspicious of new inventions and new ways of thinking.					
27. I rarely trust new ideas until I can see whether the vast majority of people around me accept them.					
28. I feel that I am an influential member of my peer group.					
29. I consider myself to be creative and original in my thinking and behavior.					
30. I am aware that I am usually one of the last people in my group to accept something new.					
31. I am an inventive kind of person.					
32. I enjoy taking part in the leadership responsibilities of the group I belong to.					
33. I am reluctant about adopting new ways of doing things until I see them working for people around me.					
34. I find it stimulating to be original in my thinking and behavior.					
35. I tend to feel that the old way of living and doing things is the best way.					
36. I am challenged by ambiguities and unsolved problems.					
37. I must see other people using new innovations before I will consider them.					
38. I am receptive to new ideas.					
39. I am challenged by unanswered questions.					
40. I often find myself skeptical of new ideas.					

PART III. RESEARCH COMPETENCIES

Directions: Using the scale below, check the number that corresponds to what you perceive on the level of your research competencies. Your responses in this area would be the basis in the development of a research training.

5- Strongly Agree (SA), 4- Agree (A), 3- Neutral (N), 2- Disagree (D), Strongly Disagree (SD)

STATEMENTS	5 (SA)	4 (A)	3 (N)	2 (D)	1 (SD)
A. Practical Skills					
22. Finding and use of Resources.					
23. Using the library and Information technology effectively.					
24. Recognizing and knowing when to use primary and secondary resources.					
25. Observe and record behavior.					
26. Demonstrate basic computer competency.					
B. Problem-Solving, Thinking and Communication Skills.					
27. Understand the difference between subjective and objective information.					
28. Recognize when information provided is sufficient and when it is not.					
29. Evaluate when the basis for conclusions is laid out completely and clearly.					
30. Generate research questions by recognizing gaps in knowledge.					
31. Use oral and written communication to express ideas effectively.					
32. Demonstrate an appreciation of the necessity and value of research for competent research practice.					
33. Demonstrate an awareness of and adherence to the ethical principles underpinning research activities.					
34. Design and implement research studies.					

STATEMENTS	5 (SA)	4 (A)	3 (N)	2 (D)	1 (SD)
D. Dissemination					
35. Demonstrate the basic skills required for the publication of research reports.					
36. Change the DepEd practices based on the outcome studies and other research.					
E. Roles and Functions					
37. Engage in activities that contribute to the development of a body of knowledge.					
38. Design and implement a series of studies that address a significant issue.					
39. Write research funding applications to major funding bodies.					
40. Offer help and support the other researchers.					
41. Publish in major journals.					
42. Contribute to theory within a particular area of study.					

PART IV: ATTITUDE OF MASTER TEACHERS TOWARDS CONDUCTING RESEARCH

Directions: Check the number that corresponds to what you think in conducting Action Research using the scale below.

4- Totally Agree (TA), 3- Agree (A), 2- Disagree (D), Totally Disagree (TD)

STATEMENT	4 (TA)	3 (A)	2 (D)	1 (TD)
11. Doing research is valuable to the teaching and learning process for me as a teacher.				
12. Doing research is valuable to the teaching and learning process for my students.				
13. Doing research will positively impact my students' learning.				
14. Doing research project will positively impact my teaching.				
15. I view myself as a teacher-researcher.				
16. Doing research will develop and enhance my skills professionally.				
17. Doing research encourages critical self-reflection.				

STATEMENT	4 (TA)	3 (A)	2 (D)	1 (TD)
18. Doing research engages teachers into a more systematic examination of instruction or teaching practice.				
19. Doing research enables teachers to examine and explore classroom and school problems and their solutions.				
20. Doing research helps teachers to acquire new knowledge for classroom teaching.				

PART IV: CHALLENGES FACED BY MASTER TEACHERS IN CODUCTING ACTION RESEARCH

Directions: Check the number that corresponds to the challenges you faced towards conducting Action Research using the scale below.

4- Totally Agree (TA), 3- Agree (A), 2- Disagree (D), Totally Disagree (TD)

STATEMENT	4 (TA)	3 (A)	2 (D)	1 (TD)
16. I do not have enough knowledge how to do research.				
17. I find doing research as time consuming.				
18. I am so busy with my own teaching practice and personal life to do research.				
19. I do not have much support from the school to do research.				
20. I have no interest to do research at all.				
21. I am not motivated to do research.				
22. I have a low proficiency in English that hinders me to do research.				
23. I do not see the importance of doing research in my professional life.				
24. I have no access on materials (journals, research books, research reports and etc.).				
25. There is a shortage of training and seminar on research activities.				
26. I don't have enough knowledge on the research funding.				
27. There is lack of recognitions to conducted research activities.				

STATEMENT	4 (TA)	3 (A)	2 (D)	1 (TD)
28. Heavy teaching load affects the practice of research.				
29. There is lack of clear role of teachers in the school to conduct research.				
30. Some Master Teachers get promoted even without research.				

APPENDIX E

FOCUS GROUP DISCUSSION RESULTS

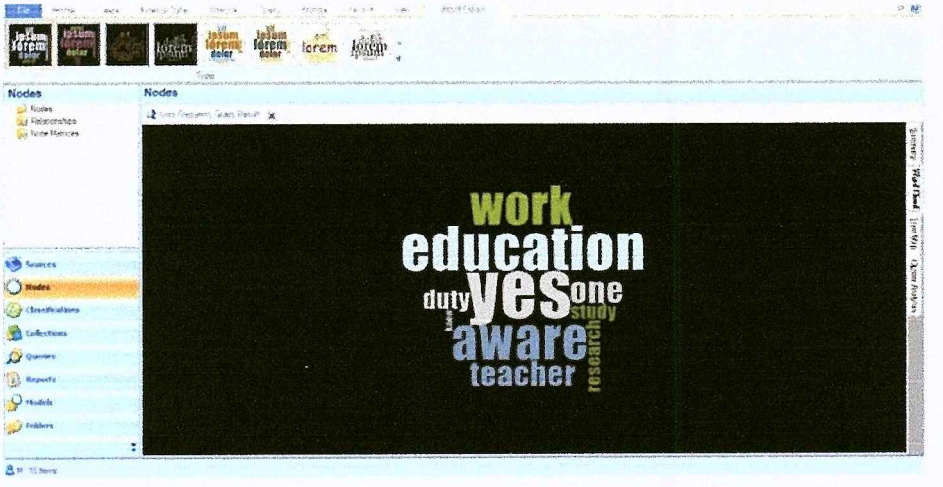

Figure 3. Word Cloud on the Respondents' Awareness of their Duties

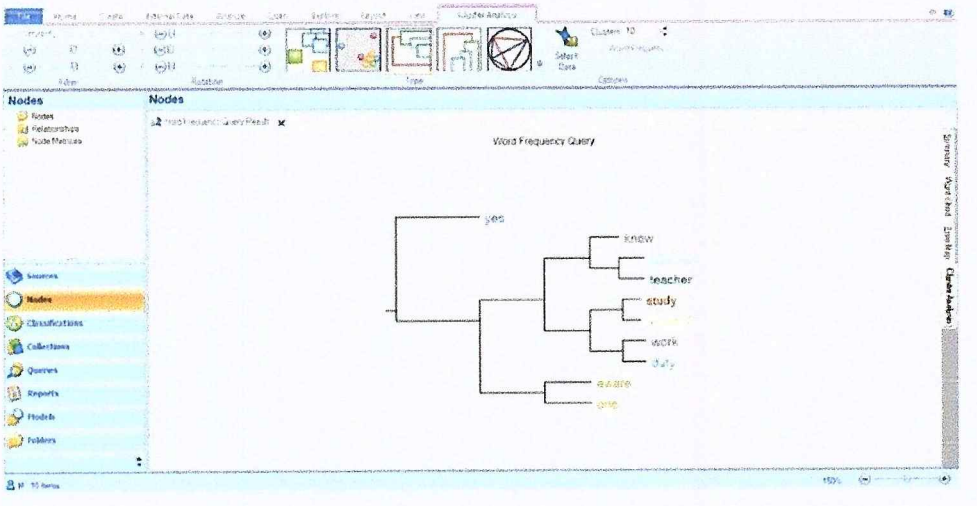

Figure 4. Cluster Analysis of the Respondents' Awareness of their Duties

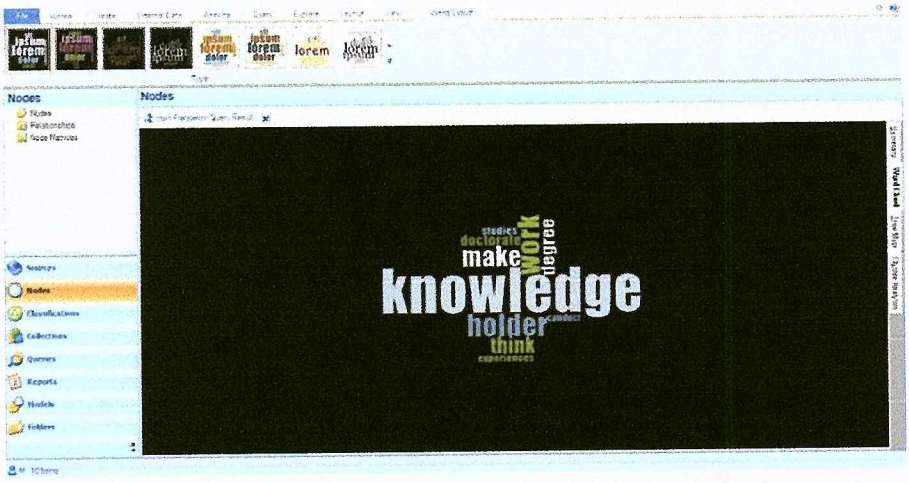

Figure 5. Word Cloud on the Respondents' Educational Background in Doing Research

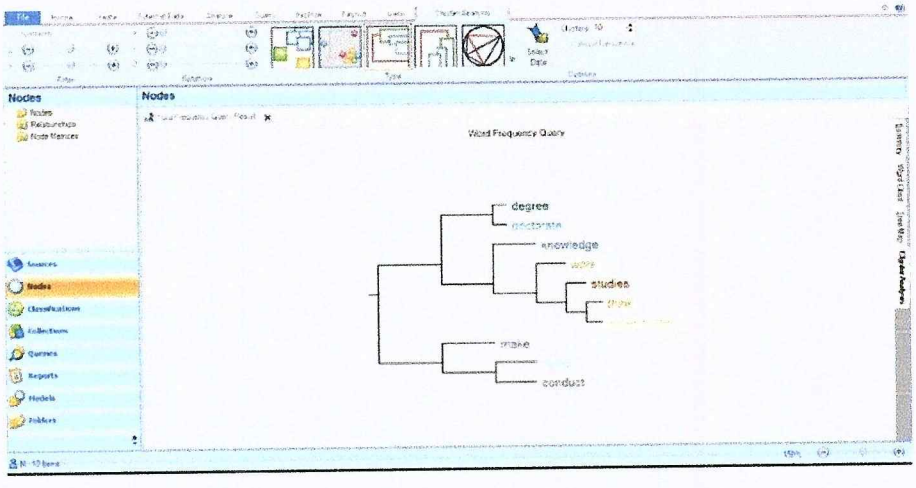

Figure 6. Cluster Analysis on the Respondents' Educational Background in Doing Research

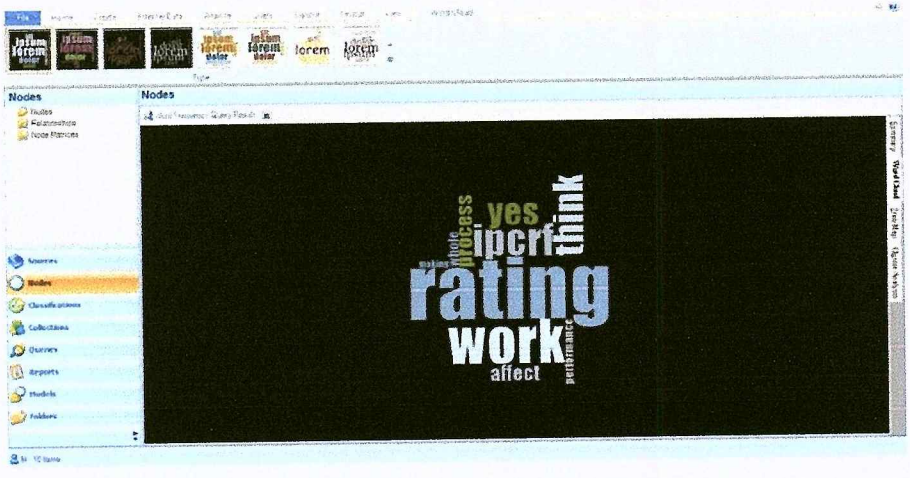

Figure 7. Word Cloud on the Respondents' IPCRF Rating in Doing Research

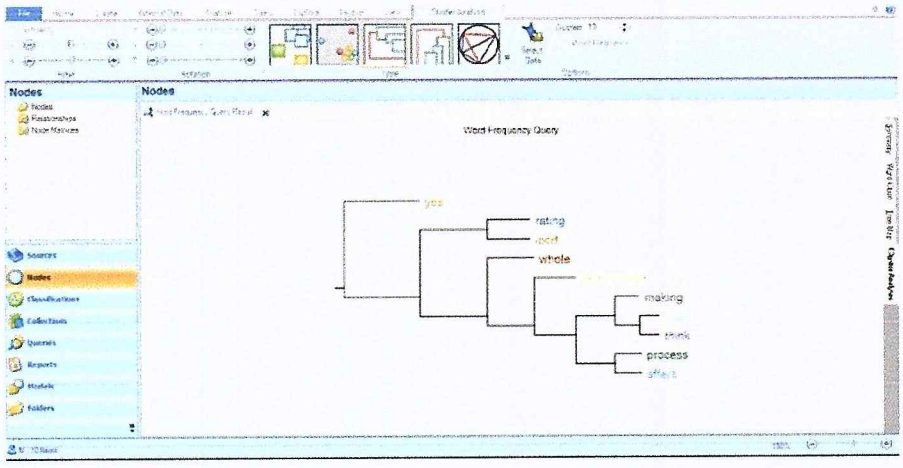

Figure 8. Cluster Analysis on the Respondents' IPCRF Rating In Doing Research

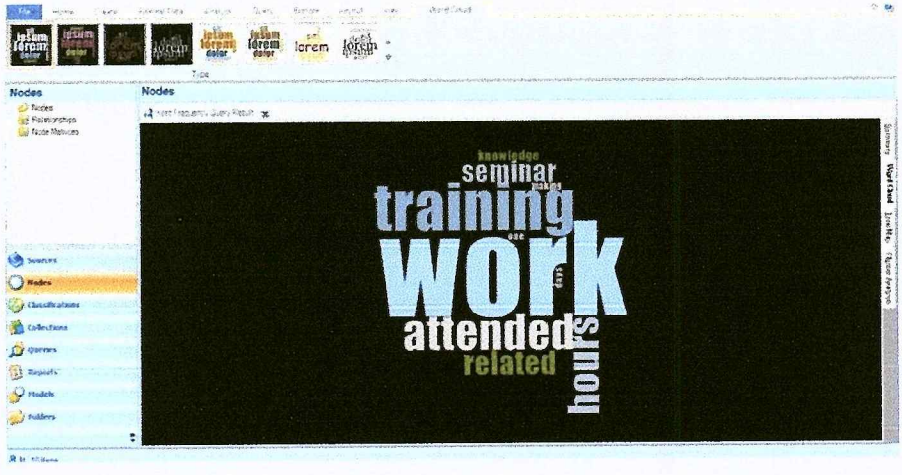

Figure 9. Word Cloud on Respondents' Attendance in Training

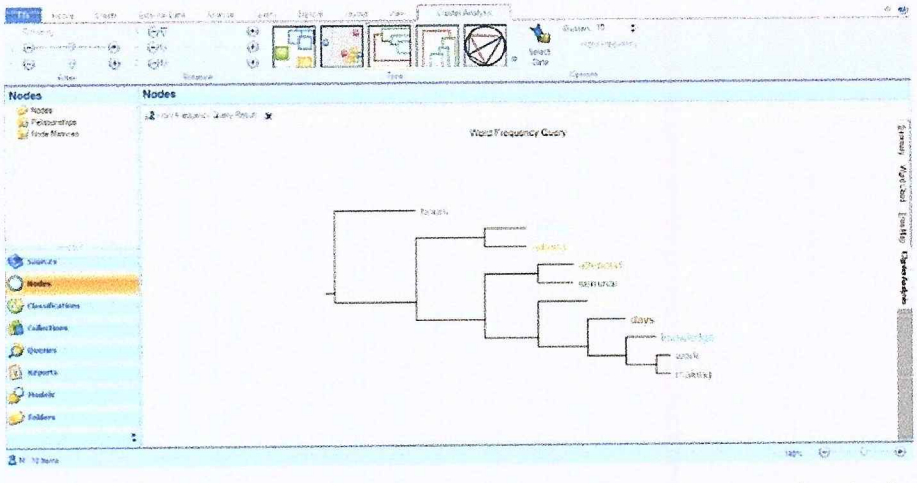

Figure 10. Cluster Analysis on Respondents' Attendance in Training

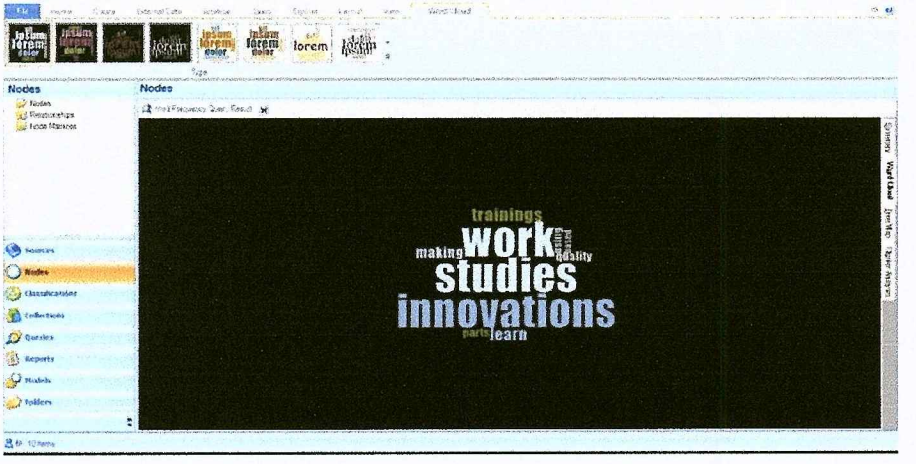

Figure 11. Word Cloud on Respondents' Innovations in Doing Research

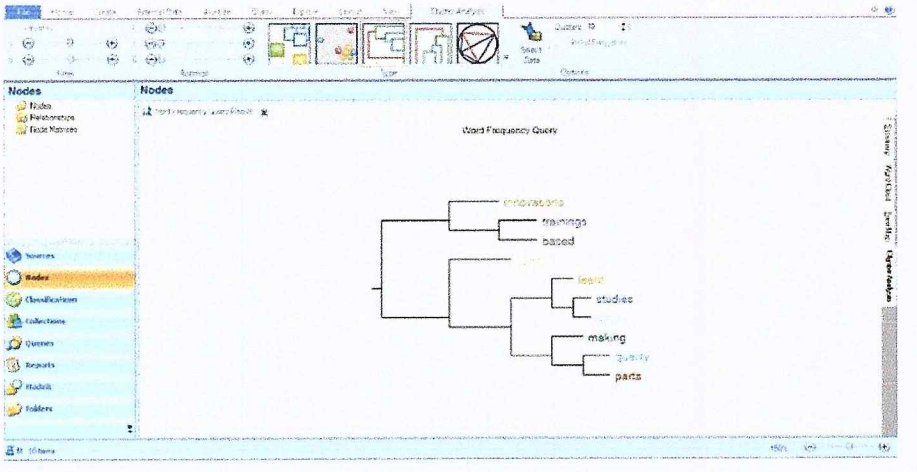

Figure 12. Cluster Analysis on Respondents' Innovations in Doing Research

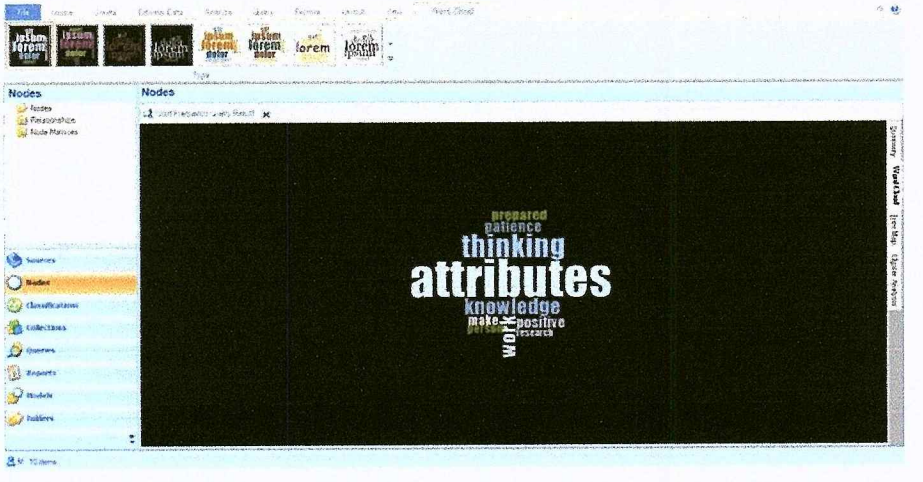

Figure 13. Word Cloud on Respondents' Attitude in Doing Research

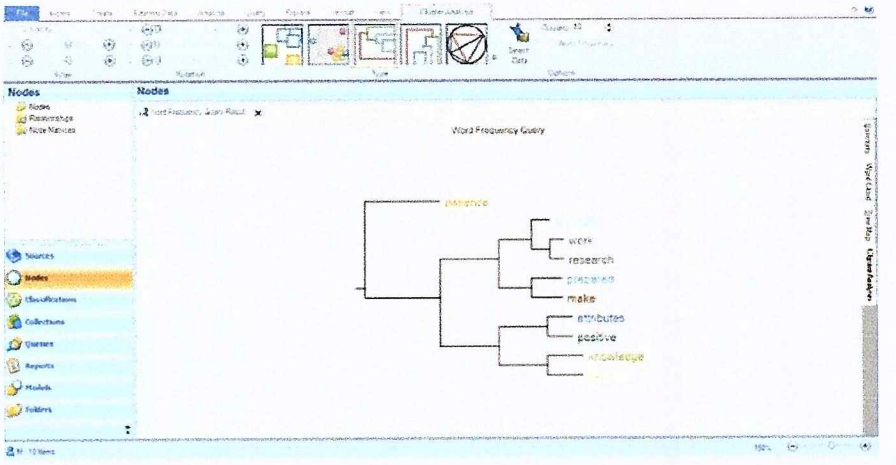

Figure 14. Cluster Analysis on Respondents' Attitudes in Doing Research

CURRICULUM VITAE

CURRICULLUM VITAE

Name Civil : **MICHAEL PACANAN MABULAC**

Status : Single

Address : Poblacion, Motiong, Western Samar

Parents :

Father: Armando Fabrigaras Mabulac

Mother: Pacita Pacanan Mabulac

EDUCATIONAL BACKGROUND

Graduate Studies:

Doctor of Philosophy
Major in Educational Management
Samar State University
Catbalogan City, Samar
Graduated, 2020

Master in Education
Major in Educational Management
Samar State University
Catbalogan City, Samar
Graduated, 2014

College:

Bachelor of Secondary Education
Major in Mathematics
(Earned Units)
Samar College
Catbalogan City, Samar
Earned Units, 2012

Bachelor of Science in Computer Engineering
Pamantasan ng Lunsod ng Maynila
Intramuros, Manila
Graduated, 1999

Secondary:

Samar State University, Paranas Campus
(Formerly Wright Vocational School)
Paranas, Samar
Graduated, 1994

Elementary:

Motiong Central Elementary School
Motiong, Samar
Graduated, 1988

CIVIL SERVICE ELIGIBILITY

Licensure Examination for Teachers
October 1, 2009
Rating – 85.00%

Professional Civil Service Eligible
February 4, 2002
Rating – 84.60%

WORK EXPERIENCE

September 26, 2016 – Present	Master Teacher I Senior High School Department Motiong National High School Motiong, Samar
June 1, 2016 – September 26, 2016	Present Mobile Teacher Alternative Learning System Division of Samar
January 20, 2007 – March 1, 2011	Customer Service Representative ePERFORMAX Alabang, Muntinlupa City
June 16, 2002 – June 6, 2006	Information and Technology Instructor Eastern Visayas State University Tacloban City, Leyte

June, 1, 2001 – May 31, 2002	Department Head Computer Engineering Department St. John Technological School Novaliches, Quezon City
July 29, 1999 – March 22, 2001	Computer Science Instructor Asian College of Science and Technology Alabang, Muntinlupa City

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