The Influence of Research Skills to the Research Attitude of Senior High School Students and Faculty of RCAM Educational System Cluster 3: Basis for a Research Protocol for Private Schools

Chapter 1

The Problem and Its Setting

Introduction

The world of Research is a demanding world. According to Barnett, Robinson & Rose (2008), globalization brought an enormous demand for knowledge production than knowledge consumption. This shift pushed the world of education to transform itself intensify the integration of research from instruction, pedagogy, principles and assessment method. Research and its role in education provided an avenue for new knowledge, new paradigms and better approaches in solving educational problem and decision making. As an imperative area across the discipline under education (Kapur, 2018), research transforms the administrators, teachers and students into diligent researchers and objective learners of the 21st Century Education. The culture of research is not only a required feature of a 21st century classroom instead, it a real life task that from its people, the stakeholders and the educational legacy of the institution (Clemena & Acosta, 2016; Hanover Research Journal, 2014; Marchant, 2008). With an “extended” degree of professionality, research asks for more intellectual progression and strong commitment towards the development of a continuum that perpetuates until the next batch of researchers (Evans, 2007).

The Cluster 3 School under the Roman Catholic Archbishop of Manila Educational System is compose of The San Felipe Neri Catholic School is a PAASCU Level II Accredited School in the City of Mandaluyong. As an accredited school, its reputation in the field of academics, co – curricular and extra – curricular activities is known on its Cluster System and neighboring schools. One of the newly born department in the school system is the Research Office. It was the brainchild of its current school Principal Dr. Henry A. Davalos and the office was equipped with the aim of helping the school attain the status of “School of Excellence with research as an integrated avenue for institutional reputation and faculty- student advancement” (SFNPS Research Manual , 2016). On the first year of the research office, there has been several adjustments ranging from acceptance to denial. The rigor of research is never an easy endeavor; teachers and administrators need to adjust on the demands of research tasks (in terms of data gathering, acceptance of results, program reforms and program alignments). The implementation involves the standardization of research practice in the institution, the creation of a unified research formats and research goals for students and for faculty; the scheduling of research colloquia and output presentations and the tedious review and assessment of current

programs based on data and feedbacks. The first year of implementation has been a roller coaster ride for the administrators and faculty; most importantly to the research coordinator. The research coordinator is also the research coordinator of the other schools under the Cluster 3 of the Roman Catholic Archbishop of Manila – Educational System. He supervised the research tasks of the teachers, advice students on their researches and provide opportunities among faculty and students for research collaboration, benchmarking and publications. During the first year of his office, the research department was able to produce 8 proposal for each department and was able to conduct 2 research colloquia for junior high school and senior high school students. The consistency of the program was intensified on the year 2017 when the first research colloquium for teachers was conducted as part of the culmination of the Summer In – Service training program for teachers. The PAASCU Level II report lauded the "strong research program for faculty and students" and became one of the school's best features. Research activities for students is not only limited for formal research, but it also includes activities for Science Investigatory Projects, Action Research for Students for Junior and Senior High School Students and Observational Logs and Exploratory Writing for Primary to Intermediate Level. On the year 2018, the research office has already 12 researches published on local and international publications.

Despite these milestones, there are still challenges that the research office would like to triumph with. One of this is the level of research interest among students and faculty. For the past succeeding 3 years, since the implementation of the office programs end even before the creation of the program, it has been observed that the interest of students and teachers in doing research is "somehow" stagnant, and slow.

As shown in the Accomplishment Report of the Research office (March, 2019) the data revealed inconsistent scores from the SFNPS Teachers from a 4 – year span. The year 2016 is the year the research office started working within the school system yet still, the year 2016 revealed an increase (at the beginning of the year) and a decrease (at the end of the year). It was described as inconsistent because of the carry – on effect revealed by the data. When the data ended high at the last survey of the year, then it will start high on the upcoming academic year yet will end lower at the end. The same trend was revealed by the students. While it is true that the research activities of the students is integrated with subjects Science, Math and English, the Research office discovered that the students, like the teacher, have the same inconsistent relationship with research. The

increase of student motivation in doing research on the year 2016 , followed a drop on the year 2017 and became stagnant on the recently concluded Academic Year (2018 – 2019).

There are seldom studies that revealed the importance of research attitude in the success of research culture in a certain academic institution (Ahmad, 2017; Clemena & Acosta, 2016; Hanover Research Journal, 2014; Kapur, 2018). Most of their data revealed a significant difference from the time of research program implementation and its ability to perpetuate in the school system; however, on the study of Evans (2007), she cited the results on work of Shamai & Kfir (2002), Bortherton (1998), Jootun & McGhee, (2003), Thomas & Harris (2000) mentioning a common difference on the challenges influencing research interest among teachers and students. Some of the of elements worth reflecting are (1) a teaching focused school culture; (2) curriculum development is the priority without considering the nature of the clienteles; (3) resentment of the staff in writing research "as long as their students are writing one". Deem & Lucas (2010) also explained the ability to do research influences commitment and persistence in doing proposals, thesis and even small scale researches.

With these cases and issues related to research, the researcher examined the condition of the research interest among teachers and student of San Felipe Neri Parochial School. This study will also examine the role of research skills in the formation of faculty and student's research attitude.

Theoretical Framework

The structure of the case being discussed in the thesis is rooted from the two important variables of the study: (1) research attitude and (2) research skills. Harackiewicz & Hulleman (2009) discussed the role of interest in the formation of essential skills among students and faculty in the field of research and development. In the same discussion, the authors defended the essentiality goals in the formation of interest. In the writing of research, it is necessary that interest must be matched with proper skills in research writing. Students, on the other hand, is more driven in the conduct of research when they can actualize their academic goals and adopt to its more specific goals. In the postpositivist view of (on) research writing, it is explained by Denzin & Lincoln (2000) that the role of interest in research writings is pertinent to the formation of a research case. Same with the discussion of Toffel (2016), he defended that the relevance of research depends heavily on the interest to discover new things and to write new wonders. The

interest theory defines human interaction as the result of a motivational force that is called interest. According to Hidi & Renninger (2016), interest refers to “individual’s momentary experience” of being captivated; such captivation may include his feelings that can be enduring or lasting, and or short or shallow. It is both a matter of psychology and human predisposition which may result to an increased attention, effort and affect. Teachers ability to do research is also a matter of interest. Calma (2009) emphasized that teachers and students will only be motivated to do research if their interest is being given importance. On the study of Harackiewicz, Smith, & Priniski (2016) and York, O’Keefe, & Harackiewicz (2005), they highlighted interest as a necessary force in the formation of research culture. Moreover, the both study agreed that a strong research interest can only be formed if there is a strong root that anchor every teacher and student on the most important research skills. If they want to have a good grade, they must study. If they want to have a good research, they must know how to craft a real one. In addition to the interest theory, the achievement goal theory emphasizes on every student and faculty skills to target their skills in the attainment of goals. The skills of every researchers allows them to perform empowered by motivation to learn” (O’Keefe & Linnenbrink-Garcia, 2014). Achievement Goal Principle is related to interest theory. While the interest is alive, the aim to achieve is also undying. The mastery goal refers to a focus on learning and improvement. In the study of Calma(2009) and Hazelcorn (2008) they provided that teachers and students who keep on learning research contributed a lot in the structuring of a school’s research culture. The mastery goal, referring to their ability to do research, provided an avenue for critical thinking skills and creativity in decision making, school planning and in the assessment of learning. Achievement goal theory also suggests that “the skills will only be better if it gears towards active engagement. Passive engagement deteriorates motivation and kills the interest of learning new things. On the other hand, the performance goal refers to a two different perspective in seeing growth and change brought by experience: (1) performance goal refers to the demonstration of competencies when positive judgments are expected; (2) avoiding appearing incompetent when negative judgements are expected. Thus, the rule of achievement goal follows a reciprocal pattern; a faculty and a student that has an interest with research writing should go near with research rather than assuming “he can”. A faculty that has a skill in research writing should focus his interest in developing researches that will contribute to the enrichment of his own field of specialization. The third theory used in the study is the Expectancy Value Theory. When the skills empowered oneself, the researchers’ interest will develop towards

refining that particular skill. Expectancy-value models of motivation posit that an individual will be motivated to engage in a task to the extent that they feel they can be successful at it (expectancy) and they perceive the task as being important to them in some way (value) (Harackiewicz & Hulleman, 2009).

The role of expectancy and value in the formation of research interest (as brought by research skills) follows the intrinsic and extrinsic value. The intrinsic value comes from the desire to be successful; thus, pushing the inner motivation to the limits. The extrinsic value, on the other hand, is the result of different defining stimulus influencing our attachment towards a particular hobby, or an interest. It can be deduced that the skills in research improves our ability to be interested on doing research. The expectancy value embraces our desire to publish a research or to create one; and the "value" of it is understanding the importance of doing it towards the improvement of our craft and of the institution the researcher is attached with.

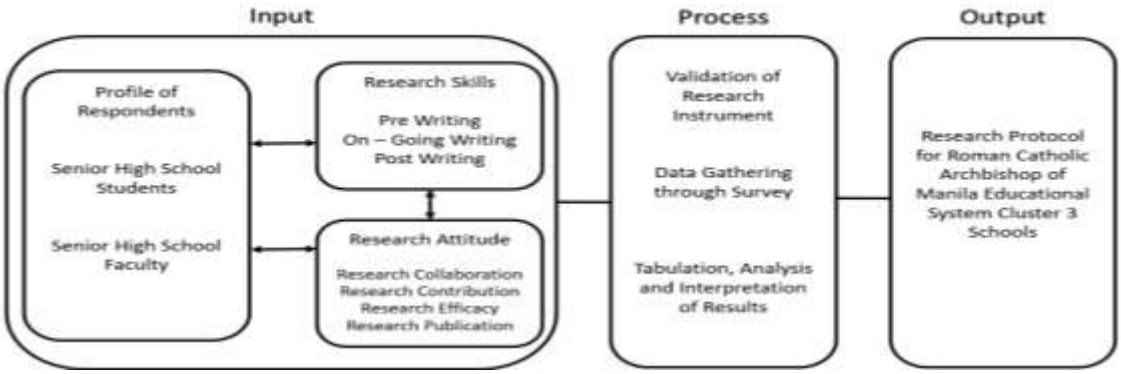
The interest theory, achievement goal theory and expectancy value theory provided the theoretical construct of the study. The theories used found congruence on the objectives of the study that aims for the determination of influence of research skills to the research attitude of the Senior High School Students and Faculty. interest theory accentuates the importance of interest among researchers which is essential to the formation of research skills and research attitude. Achievement goal theory formalizes the role of individual efforts in the completion of the research endeavor. Lastly, the expectancy value theory makes the first two theory important by emphasizing the role of intrinsic (interest) and extrinsic (goals and rewards) motivation in the formation of research skills and research attitude.

Conceptual Framework

The study works with the skills and attitude of teachers in doing research. In the academic milieu of San Felipe Neri Parochial School, research is relevant to the formation of new programs, assessment of productivity among existing programs and recalibration of the "assessed" programs to meet the needs of its current clienteles and stakeholders. Research is defined as, both, an action and an output. It is an action for it refers to the "revisiting" of existing facts conceptualizing it to a new setting, for a new purpose. It is an output because it is outcomes driven; the impact of research is not within the papers but its ability to influence the people inside the locale of the study.

The input of the study contains the profile of the respondents: the faculty and the students. As for the faculty, the researcher included educational background, years of service in teaching and the level of their research skills. For the student respondents, the researcher will look on the following variables: grade level and academic grades in English and Science.

Figure 1
Conceptual Framework of the Study



As for the process, the records on the level of research skills among respondents will also be utilized. The researcher will determine the level of pre – writing, on – writing and post – writing skills of the respondents. Also, the researcher will determine the research attitude of the respondents utilizing the following predictors: (1) Research Collaboration; (2) Research Contribution to Specific Discipline and (2) Research Publication and (4) Research Efficacy. The attitude of the teacher in doing research is the fuel that enables every faculty researcher to embrace the rigor of research writing. While there are lots of avenues and opportunities in doing research, there are also hindrances in maximizing one's potential in doing research. According to Gilmore & Feldon (2010), one of the leading caused for the decline of research interest is the skills related to research. The skills in doing research is essential for actualization of the research interest. Several studies (Calma, 2009; Shamai & Kfir, 2002; Toffel, 2016; York et al., 2005) defined the role of interest as "powerful starter" in the conduct of research however, they included that the interest of the researcher can only be actualized if one is equipped with the skills in the proper conduct of research activity. In the recent study of Pambuena & Bernarte (2018) and Ulla, Barrera, & Acompanado (2017), they highlighted the rudiments of research skills and its importance to the development of a productive culture in selected school and HEI's in the Philippines. At the end of the framework, the researcher must be able to create an Institutional Research Agenda for the Cluster 3 Schools under the Roman Catholic Archbishop of Manila Educational System. The institutional research agenda (IRA) will

conceptualize and standardize all research activities that will involve both faculty and students of Cluster 3 Schools.

Statement of the Problem

This research titled “The Influence of Research Skills to the Research Attitude of SHS Students and Faculty of Roman Catholic Archbishop of Manila Educational System (Cluster 3): Basis for an Institutional Research Protocol for Private Catholic Schools” aims to discover the role of research skills in the development of student and faculty attitude in doing research.

Specifically, it sought to answer the following questions:

1. What is the profile of the Senior High School Students in terms of:
    - 1.1. Sex
    - 1.2. Age
    - 1.3. School
    - 1.4. Track/Strand
    - 1.5. Academic Achievement
        - 1.5.1. Practical Research 1
        - 1.5.2. Practical Research 2
        - 1.5.3. Entrepreneurship
    - 1.6. Number of Research Engagement
2. What is the profile of the Senior High School Faculty in terms of:
    - 2.1. Sex
    - 2.2. Age
    - 2.3. School
    - 2.4. Position
    - 2.5. Educational Background
    - 2.6. Years on Teaching
    - 2.7. Number of Research Engagement
3. What is the level of research skills of the respondents in terms of :
    - 3.1. Pre – Writing
    - 3.2. On – Writing
    - 3.3. Post – Writing
4. What is the level of research attitude among respondents in terms of:
    - 4.1. Research Collaboration

4.2. Research Contribution to Specific Discipline

4.3. Research Publication

4.4. Research Efficacy

5. Is there a significant difference on the profile of the respondents if tested on their:
   5.1. Research Skills
   5.2. Research Attitudes
6. Is there a significant relationship on the profile of the respondents if tested on their:
   6.1. Research Skills
   6.2. Research Attitudes
7. What is the extent of influence do Research Skills cause to Research Attitude?
8. What protocol for research programs and activities can be crafted from the result of the data collection?

Statement of Hypothesis

Based on the research problem of the study, the following hypothesis was derived:

1. There is no significant difference on the research skills of the respondents if they are grouped according to their profile.
2. There is no significant difference on the research attitude of the respondents if they are grouped according to their profile.
3. There is no significant relationship on the research skills of the respondents and their profile.
4. There is no significant relationship on the research attitude of the respondents and their profile.

Assumption

This study operates on the assumption that every faculty and student has a differing attitude towards research writing. However, their attitude and interest maybe influenced by their competence in writing research. In contrast to the statement of the hypothesis, this research study follows the following assumption:

1. There is a significant difference on the research skills of the respondents if they are grouped according to their profile.
2. There is a significant difference on the research attitude of the respondents if they are grouped according to their profile.
3. There is a significant relationship on the research skills of the respondents and their profile.

4. There is a significant relationship on the research attitude of the respondents and their profile.

Scope and Delimitation

The study will measure the level of interest among students and faculty in writing a research. As such, the research will need to determine the level of skills in terms of (1) pre - writing; (2) on – writing and (3) post – writing. The researcher will look in the "assumed" influence of the research skills in the research attitude of the both students and teachers; in terms (1) Research Collaboration; (2) Research Contribution to Specific Discipline; (3) Research Publication and (3) Research Efficacy. The research will be conducted at three schools under the Roman Catholic Archbishop of Manila Education System – Cluster 3; specifically, San Felipe Neri Catholic School, Sacred Heart of Jesus Catholic School and Jaime Cardinal Sin Learning Center on the Academic Year 2019 – 2020. The involved respondents will be the Senior High School students and Senior High School Faculty.

Significance of the Study

While it remains true that the creation of "***research culture"*** is never single forward or formulaic, it remains to be a powerful force of change for the academic sector and its stakeholders. While there are lots of researches published that dwells on "interest in writing research", there have been some few attempts in localizing such researches in relation to research competency skills. In the words of Hazelcorn (2008), the significance on the attempt to understand research culture will be "every school's" success. Hazelcorn further reminds us that building a research culture is never without a challenge "especially to those area were research is new and have just started." Hence, the result of the study will lead to different contributions for teachers, students, administrators and the whole RCAM-ES.

Teachers. The value of research in every field of discipline is indispensable. Every teacher is a researcher. This study will imbibed on them the virtue of academic diligence and the undying pursuit for knowledge expansion. This paradigm shift will enable our teachers to become producers of knowledge rather than a passive absorber. If the school will have an intensified research culture that will start with the teachers, it will perpetuate among the students; fortifying the culture and instilling it as a natural part of the system.

Students. The outcome of the study will be an encouragement for them to commit themselves in the pursuit of academic writing while harnessing the value of academic integrity. Curriculum writers and curriculum managers will gear their efforts towards the development of student's research skills. The result of the study will further enhance the structure of research in the classroom setting. Since the research will gear towards bridging the connection of research skills and research interest, school programs may be crafted enhancing school programs for research activities and student's immersion on research activities like colloquium, student research benchmarking and research publications.

Administrators. The value of research writing is pertinent to the growth of the school system. On a growing PAASCU Accredited Level II school like the San Felipe Neri Parochial School, production of research is not only a matter of compliance but most importantly, a concrete evidence of a strong educational reputation. For the past 3 PAASCU Visit, research became one of the highlights of the visitation. However, during the last visit, the PAASCU recommended the evidence of proper research utilization in terms of data and output. After the said recommendation, the progress on the research production became stagnant. The research interest survey applied by the school research coordinator only seeks interest of the teachers and faculty in writing researches, however; the lacking part is their skills in research writing. Since, exodus in teachers is rampant, it may have affected the established research structure of the school.

Definition of Terms

As used in this study, the following terms are defined operationally as follows:

Attitude. Bandele & Adebule (2013) defined attitude as the readiness to act in a certain way towards a specific concern or issue. In this study, attitude refers to the product of skills acquisition in research.

Data Collection and Analysis. In this study, this term refers to the ability of the researcher to gather the collected data into a tabular form (for quantitative); transcription table (for qualitative) and apply necessary statistical treatment in order to yield to a plausible conclusion.

Methodology Design. As used in this study, methodology design is the ability of the researcher to apply the suited principles of research designs that will meet the needs of the nature of his data and respondents.

Presentation Skills .This study operationally define this terminology in reference to the skills of the research of being articulate on the results of the data. Also, it includes his ability to construct presentations and his persuasion to the audience or listeners.

Research. Research is a process of steps, systematic steps towards data collection and analysis; contributing to increase understanding and disciplinary progress (Creswell, J. W., & Clark, 2011). In this study, research refers to the ability of the faculty and student to challenge existing problems existing in the research locale, design specific methods for data collection and construct relevant recommendations for the solution of the encountered problem.

Research Attitude. As defined by Belgrave & Jules (2015), Research attitude refers to the "manner of acceptance" of every academician, students and professionals on the rigors of research and its importance to a specific discipline. In this study, research attitude is the respondent's "acceptance" of the rigor of research that includes specifically: (1) the writing activity; (2) collaboration; (3) contribution; (4) research publication.

Research Collaboration. Citing Amabile et al (2001), research collaboration is collaboration with different intellectuals, authorities and enthusiasts that works hard for a particular purpose.

Research Competence. According to Aralleno, Morano, & Nepomuceno (2012), is the totality of a respondents' skills relevant to the conduct of research. In the light of discussions made in this study, Research Competence is the respondents overall performance on the skills needed in research writing.

Research Conceptualization. Refers to the ability of the researcher to construct research cases that will lead to a feasible research problem.

Research Culture. The term refers to a strong framework or structure built from empirical outputs and rigorous data collection and data analysis. According to Hanover Research Journal (2014) citing the works of Cheetham (2012), it is a structure that gives high significant value to all efforts and outputs made of research. Consequently, in this study, research culture is the environment that contributes to research productivity among faculty and students. This is also pertaining to the actualization of the goals of the research manual contributing to excellence and integrity after the research process.

Research Efficacy. The term refers to confidence of the respondents in exhibiting appropriate skills in doing research. It also includes the researcher's confidence in the exercise of statistical treatment, analysis of data and writing the action plan of the study.

According to Rezaei & Miandashti (2013), research self – efficacy is the ability of the researcher to showcase strong hold of confidence in their research abilities.

Research Interest Survey. It is a survey provided by San Felipe Neri Parochial School for Faculty and Student Researchers that aims to measure respondent's attitude towards research writing.

Research Skills. Pambuena & Bernarte (2018) defined research skills as "essential skills" of both hand and mind in the pursuit of research excellence and productivity. In this study, research skills will refer to the five research skills that is in possession with the respondents. These are: (1) Research Conceptualization; (2) Review of Related Literature Writing; (3) Methodology Design; (4) Data Collection and Analysis; (5) Presentation Skills.

Review of Related Literature Writing. Refers to the skills of the research in the collection of related literature and studies, establishing coherence in writing and effective synthesis of the write-ups.

Chapter 2

Review of Related Literature and Studies

This part discusses the different concepts, result from previous studies, and connects with the variables understudy to come-up with substantial support to the goals of the study.

Related Literature

Professional development is an integral part of every educational reforms. Aside from maintaining vibrant credentials and an esteemed reputation, professional development plays a vital role in the attainment of institutional goals set by an academic institution. Several educational researchers, administrators and faculty have expressed an affirmative note in the role of professional development in the growing field of the academe. Studies about professional development in the Philippines was highlighted by Gonzales & Callueng (2014) and the UNESCO Philippines (2010) studies on the Trends and Development on the Philippine Education. According to Gonzales & Callueng (2014), professional development in the Philippines is always perceived as an approach in improving faculty and administrators to meet the demand of the growing needs for student achievement. However, the report of the UNESCO Philippines (2010) on the Trends and Development on the Philippine Education, revealed that professional development is still a matter of concern for the Philippine Education. The effort of the trifocal body of the Philippine Education, CHED, DEPED and TESDA, in providing professional development for the teachers and administrators is consistent and well documented. The problem is in the consistent application of the “acquired” practices during the seminar and the motivation of the teacher in attending. On the Board of Professional Teachers Report (2017) by Dr. Rosita Navarro, she expressed a so called “fallacy” regarding teacher education in the Philippines. The fallacy is actually our misbeliefs on the board examination. In her pivotal report entitled “Developing the Filipino Professional Teacher: Journey of Hundred Years”, she argued that the board examination will never suffice the school’s idea of having quality teachers. Aside from passing the board examination for teachers, this “new teachers” should undergo a “review of the basics” such as the Code for Professional Teachers and the Magna Carta for Teachers. Also, new professional teachers will need enormous amount of guidance, assistance and inspiration from the tenured teachers “to develop commitment and fortify his grounds to the profession. Lastly, she emphasized the

inevitable role of professional development by means of continuing education and participating on local and international conferences and seminars to update their skills, knowledge and competencies; such actions will lead to an unparallel progression in the teachers' career.

In 2017, the Philippine Legislation approved Republic Act 10968 or the Philippine Qualifications Framework Act of 2017. The act strengthens the constitutional provision on providing "a complete, adequate and integrated system of education relevant to the needs of the Philippine Society". Moreover, it solidifies the goal of the profession towards life-long learning; equips the professionals a more up – to – date set of skills align to his field of specialization and makes every professional accountable to the outcome of his training and learning. On the transcript of report during the CEAP convention (2018), they mentioned the importance of research in the development of institutional policy, aligned with the Philippine Qualifications Framework. Research is highly relevant to those professionals who are already at PQF 6 and 7; for under such domains it requires the professional to "apply professional work or research" in a specialized field of study. It also enforce to the professional the application of his research work to a team or a specialized multidisciplinary work. Such research work will yield to a strong "force of change" that will ripple across the institution, the school or an organization.

Citing important Deped and CHED Memoranda, Ulla (2018) emphasized the role of research in the academe by highlighting it as an "not an ordinary activity of professional development." Research writing is the culmination of every teachers and academicians intellectual ingenuity. It transcends high and it defeats the pragmatic way of decision making and policy making. It provides a plethora of objective choices and roots every actions to empirical data; that is devoid of biases, presuppositions and hasty conclusions. On the same discussion of the Department of Education (2016) it becomes imperative among school heads and administrators to adopt the national research agenda for basic education. Its prime importance to schools can be associated with school based management plans, teaching – learning intervention programs and evaluation of existing plans and programs. The basic research agenda for the basic education department behooves every teacher to be an educational researcher; to further expand the knowledge on his own chosen field of discipline.

Professional Development is one of the thrust of the Private Education Assistance Committee (PEAC). Four out of the five Internally Funded Programs of Assistance of PEAC is attributed to research production, research dissemination and research

publication. All programs are anchored to the Philippine Qualifications Framework and follows a particular research agenda unique to the needs of the school. RSITE or *The Research for School Improvement towards Excellence* encourage faculty and administrators, from the private institution, to participate in the production of researches to further improve school management and educational delivery and to create "a community of education practitioners who will work towards a research – based improvement of private schools in the country" (PEAC Official Website). RSITE also extend its assistance to teachers who are writing academic papers, thesis and dissertation which theme is school management, instructional leadership and instructional innovation. The second program of PEAC for Research Development among Private Institutions is called DARE or Dissemination Assistance for Research Education. The program provides financial assistance to any full time faculty of private educational institutions who plans of presenting researches abroad. This action of PEAC intensifies benchmarking activities, and enhances teacher's knowledge to global education and research practices across the world. As a means of continuous professional development, researchers may experience exchanging ideas, interacting with fellow researchers and contributing knowledge in his / her own field of specialization. The Philippine Education Research Journal (PERJ) is the arm of PEAC for research dissemination. It caters to educational interest such as decision making, policy making, educational leadership and innovation. The focus of the locale is the Philippines. Journals being submitted to the PERJ must contribute to the improvement of Philippine Education, both private and public. Lastly, the ASPIRE Program or the Assistance to Programs and Initiatives to Reform Education. The ASPIRE Program provides funding for school based projects that concerns Professional Development, Public Policy Development and Advocacy and Institutional Development.

Last August 11, 2017, the Department Memorandum No. 42 was promulgated by the Department of Education formalizing the adoption and implementation of the Philippine Professional Standards for Teachers. This is DEPED's action towards professional growth among teachers. Emphasizing the importance of continuous professional development and advancement of teachers in their own fields of specialization, the PPST challenges every teachers and educators to commit themselves in quality teaching by equipping themselves with the "Standards" set by the Philippine Qualifications Framework, K to 12 Reform, ASEAN Integration, Globalization and the 21st Century Education. One of the areas strengthen by the PPST is teachers engagement in research. The first domain of the PPST contains a strand for research. It relates the importance of teacher's knowledge

and competence in applying research based teaching strategies; application of learning principles by highlighting its most important research underpinning, and collaboration with other researchers across the field of discipline. The culmination of the strand is when the faculty – researcher was able to lead his colleagues towards pedagogical advancement, as output of research undertakings.

McNiff (2010), on his most important discussion about the *action research and the researcher,* mentioned that research allows the teacher to evaluate his practices and methodologies in the classroom. The need to meet the desired and expected outcome of his teaching is the one of the most important barometer of professional growth; a mutual relation between teaching and learning standards. Change is always associated with development. The role of change in the academe transpires from lesson planning, teaching strategies, and the assessment of learning outcomes. As a means of professional development, faculty's engagement in the development of researches puts great value on one's work and profession. More details, on professional development and research activities among teachers, was revealed by Grima-Farrell (2017) as she detailed on a Singaporean – based journal, that teachers who continuously engage themselves with research experienced more meaningful collaborations with fellow researchers and academician from the field. The collaborative spirit instilled among teachers in doing research comes with "freebies" to the teachers like learning other teacher's best practices in teaching and classroom management and engaging into an in – depth quest for knowledge and discover. In an article written by Cain (2011), he lauded the efforts of teachers in Crotia in maintaining a high participation rate in research in their own field of discipline. Also, Chin (2011) stresses that China invest highly in research with almost 2 percent of its GDP. Local writers, such as Salom (2017); Abon (2009) ; Ayala Claudia Odette & Garcia (2013) and Lacanaria (2010), admitted that the Philippine journey towards research and development still needs an urgent attention in terms of funding and "load" allocation among teachers. Such authors agreed that the "purely academic nature" and "the almost secretarial task among teachers (i.e. writing too many reports; preparing documents with a very little time to prepare prior to submissions; in addition to home visitations and other tasks). Clemena & Acosta (2016) discovered that a "weak belief" on research hinders faculty towards research productivity. Time is always a constant enemy and if conflict with their teaching responsibilities they opt to choose teaching than writing research. These Filipino experiences on research proves true to the literature of Bland (2005), as cited by the Hanoverian Handbook for Research and Journals (2014).

Accordingly, “sufficient work time” should be given among researchers. This work time should not be in conflict with other academic task and must not be taken for granted. An organization with a strong research spirit focuses its trust to the empirical value of data; thus, it respects the research period of faculty. Responding to this call productively, the Department of Education launches *Research O’clock* thru Department Order No. 18 Series 2019 last February 18, 2019. The said activity is the culmination of all faculty researches “done” and “on – going”. It sought to promote research sharing and utilization of developed intervention and recommendation. Division offices in the Philippines, under the Department of Education” is encouraged to send teachers, researchers and administrators during the said event, to share best practices and to build possible research collaborations.

Research is not only for the teachers. The K12 Curriculum opened different research opportunities for students as well. The research practices in the Philippine Education is already embedded since the pre – K12 era. However, the inclusion of Practical Research Subjects, Investigation, Inquiry and Immersion, and Research Driven Courses in the Senior High School have pushed the teachers in the basic education to intensify the training of the students on the pre-requisite skills associated to formal research writing.

The Philippine News Agency (2018) lauded 9 outstanding Filipino student researchers last 2018 for their contribution in the field of agriculture. Earlier this year, Maria Isabel Layson, a 16 year old Senior High School student from Ilo-Ilo, discovered the anti – diabetic property of aratiles. Last July 13, 2019, Student Researchers from Cavite was recognized for their uniqueness and product ingenuity to save the environment. They bagged silver and honorable medals on a Genius Olympiad at Oswego, New York (TV Patrol Report, July 13, 2019).

Student attitude towards research is directly influenced by the teacher’s attitude towards research. On an article created by Wang & Guo, Y (n.d.), they revealed an impressive connection between doctoral students’ ability on doing research vis – a- vis adviser’s skills on research writing. Research varies by nature, method and design; as well as individuals. Research interest refers to the inclination of the researcher to be attach with research endeavor; the passion that allows the researcher to pursue his work, despite the demanding rigor present on his work, comes from his motivation to succeed. Learning requires innovation. Research allows innovations in all aspect of the known discipline.

Research work is common for student. Research is an endeavor that the researcher must successfully defend prior to his graduation on the program.

On the light of discussion of GKS Consultating (2015), research anxiety is common to students. The fear of learning, and being criticized are the most ideal reasons for students to quit doing research. Research is a demanding endeavor. Research requires consistent action of looking for details and being cautious to trends, patterns and attributes. The rigor of research draws the most powerful line that differentiates research from other paper and pencil activities. The rigor of research pushes the researcher to explore different accomplished studies and learn from their findings and methods. When a student fear research, it triggers discouragement among researchers.

Academic workloads are common concern of students; the conflicting loads and schedules of the students makes them experience research complexity further increasing their anxiety. Murtonen and Lehtiner (2003) ,as cited by Gallos (2017), reported that students who enrolled on their research courses have skills deficiency in terms of research design and research gathering. With that kind of attitude, student remains aloof about research discussions and research writing. Research anxiety worsen as students grow negatively about their researches. It is alarming to report that as time goes by, research appreciation among students goes in a decline; fear adds to it as it may impact their future careers.

Related Studies

Research has been the common jargon in the 21st Century landscape of the academe. As such, key players in the academe involve themselves in research production to further advance their field of specialization and (or) create a new paradigm shift in the practices of their school and work stations grounded in empirical data, theoretical knowledge and practical applications. According to Hanover Research Journal (2014), research in the academe tasks the administrators to create allocation provisions that will effectively enhance the motivation of the faculty and other administrators to engage on research endeavors in their field of specialization and on their current interest. In a school organization, establishing a research culture will only be possible if it hooks both faculty and student. Research behavior, on the other hand, is the output of the research culture. In creating a culture of research, it must not be looked as a mere activity conducted by a “group of scholars” who see the importance of research. A culture of research provides a supportive context in which the process is consistently engaging, uniformly expected,

discussed, produces and valued (Cheetham, 2007). However, several studies (Evans, 2007; Hanover Research Journal, 2014; Shamai & Kfir, 2002)deemed that assessing "research culture" is a difficult endeavor. They associated the difficulty in the practice of research in the academe. The lack of consistency in the implementation of an existing research program is always a problem. Another notable problem is the early orientation in the making of researches; most notably among students, the impression created that research is simply an action of getting an information from an existing source has been a "carry-on" attitude.

In the case of San Felipe Neri Parochial School, the interest survey on research revealed that most students acquired such attitude since their Junior High School days when they tend to submit "action researches" from the data and graphs in the internet; surprisingly their teachers gave them a high remark. Another influence of the carry – on attitude experienced by the San Felipe Neri Parochial School is the "over – used" reference to the term "research". Students tend to assume they are "researching" while they are actually "browsing and copying". Results of this attitude yielded to research manuscripts failing the plagiarism test, misaligned outputs, unanswered problems and half-baked research manuscripts.

On the case of the faculty (Ulla et al.,2017), the school's research manual discuss that "teachers are active participants" towards the research publication and knowledge production. This pushes the teachers from the zone of knowledge consumer towards becoming information seeker. As a result, it is projected that after the 5 years of implementation of the SFNPS Research Office Strategic Plan, teachers will become "catalyst for change and responsible agents for the improvement of classroom teaching, gearing towards empowered learning." However, on the first three years of the implementation of the strategic plan, the teachers experienced difficulty in the conduct of research on their respective fields of discipline. Most of them started their proposals and already crafted questionnaires and surveys, unfortunately – only few was able to finish their researches. The actual output submitted by the faculty really concerns the attainment of the goals provided by the research development plan. The situation experienced by the San Felipe Neri Parochial School Faculty is never new to the educational system and was defined by Cain & Milovic (2010) as "most of the time, mechanical in implementation for the sake of professional growth without considering the action of contributing to solution and knowledge production." Moreover, time constraint, overloading tasks and lack of research exposures are common experiences by SFNPS Teachers that hinders them in

the practice of research; these concerns are the same with the different research challenges mentioned in the study of Kutlay(2012) and Morales(2016).

With these challenges experienced by both faculty and students, the conceptual underpinning of Anuar & Abdul (2013) fits well on the situation experienced by the SFNPS Researchers. Accordingly, research is both practice and a culture. It is a practice because allows the researcher to concentrate his knowledge on the existing and validate whether what we know still applies on the present situation of the academe. Research is a practice because it entails mastery of skills in writing, data gathering and communication. The practice of research in the academe is the trend provided by the 4th Industrial Revolution where knowledge the existed prior to the 21st Century has been put into reverification in terms of its authenticity and reliability in the present times. This cognitive process of discovery allows every teachers, students and academicians to move on a fast phased change of knowledge evolution in the industry (Dunlosky, Rawson, Marsh, Nathan, & Willingham, 2013). Also, problems in the field of education need not solutions that rest on the traditional way of "suggesting or recommending" but it lies very much on data production and data analysis." Kidd & Seiler (2010) discussed the importance of strong research practices since it is contributory to school's atmosphere on "possessing" a research culture.

The second element of research is its actualization as a culture. Culture comes from the Latin term *cultura* that refers to cultivating agriculture. The etymological definition emphasized the rearing of a crop, and promoting growth of plants. Cicero, on the other hand, described it as the development of a philosophical soul that becomes so natural and "one with life". Research is a culture because it unites with education and the practice of education. It goes inside the life of the people that is working and living within the bounds of the academe. Since it is a culture and it is life, we can now justify the existence of challenges that influences the conduct of research. On the study of Ulla et al. (2017), they discussed that the leading challenge(s) in establishing a research culture in the Philippine Classroom is as follows: (1) the lack of appropriate trainings "sponsored" by the school; (2) lack of research knowledge by teachers (which proves a non – significant difference on the educational attainment variable) and (3) more academic activities that burdens the teacher in doing other tasks such as research. The actualization of a "culture of research" is a difficult endeavor to attain but doesn't mean "not measurable and not attainable". Toffel (2016) included "enhanced decision making empowered by empirical data" to the criteria of possessing a culture of research in the academe. He defended that a culture of

research cannot be measure solely by “impact” since it only contributes to “familiarity” of journals among researchers. The reason for impact should be the output of the collected data. Also, research relevance “can only be justified by the research questions, hypothesis and research implications”. A growing organizational structure, according to Tierney (1988), is grounded to decisions attached with empirical data and research – based actions. Tierney further elaborated the term “common culture” as the collective action, beliefs, attitudes and values of teachers, administrators and staffs. It is crucial for everyone to inculcate the culture of research since it involves a high level of dedication and integrity towards the discovery of truth and solution to existing problems. According to Nadeem (2001) and Parker (2007), research is *culture* because it follows a rule and a custom. It possess a unique structure that includes scientific processes, qualitative narrations and experience exploration making it as a collective activity and “a communion of academicians and learned individuals”. On the same line of thought, Schein (2010) explained that a school with a culture of research is more focus on the “discovery and development of knowledge” and gears not with “knowledge enshrinement” but more of the “passing of knowledge from one generation with the other” to perpetuate what has been started by the early group of faculty – researchers. In order to establish a research culture in an academic institution, both the student and the faculty should immerse themselves in the rigor that is with research. In a PAASCU Accredited School, like the San Felipe Neri Parochial School, the role of research extends from the instruction, to curriculum and to administration. As part of faculty’s professional growth, research activities such as institutional colloquia, local and international publications and research benchmarkings are common activities deemed as necessary and “impactful” to the academic milieu. The role of research in an institution of learning, whether in the basic education or in the higher education, is pertinent to the school’s growth and legacy. According to Pamatmat (2016), the importance of research capability among the teaching personnel “should not be relegated in the backseat”; it should never be the least priority since the blood of the academe in the 21st century society relies so much with data and “new knowledge” produced by means of scientific exploration and research. Attitudes towards Research Writing has been identified by Ramirez (2010) as a challenge to teachers of the Higher Education Department of the University of the East. Thus, the mixture of intrinsic and extrinsic reward is highly necessary to further strengthen the attachment of the faculty in research writing. Furthermore, she added that the “need for competence” among faculty

members is the most important consideration if one school will desire to introduce research as part of their academic system and processes (Ramirez, 2010).

The rigor of research is what makes research an endeavor of the mind and a 21st century skill. While faculty members are expected to have their research outputs in their own respective departments and schools (DepEd Order No. 43, S. 2015 for Basic Education Department; CMO No. 17 Series 2010 for Higher Education), students are also made engage with research through the curricular offerings in the basic education and higher education. On the study of Siemens, Punnen, Wong, & Kanji (2010), they discovered that "though majority of the students felt that the research would be beneficial in their career, fewer than half of the students were significantly involved in any research activity (during their medical school.) Students who realize the need of spending more time on research activities are even fewer. About one fourth of the student reported no interest in any such activity." Patak and Naim (2012) reported that the attitude of the students towards research is affected by their working knowledge about research. Unfortunately, their report revealed a common theme among students attitude in research that is "uninterested, tough and dry". The connection to real life with research is absurd and unknown among students. Attitude remains a driving factor, a motivation, and a prime factor in doing research (Muthuswamy, Vanitha, Suganthan, & Ramesh, 2017). While it is true that the research opportunities given by the present academic milieu is abundant and rich; the concern on attitude and interest among students and faculty has always been an issue among institutions. On the conclusion of Muthuswamy et al (2017), it is never surprising if research will soon become a dry discipline because of the variations and inconsistencies on the interest of the students and faculty, which affects their ability and their potentials in writing research.

In the context of the Philippine Educational System, the Department of Education intensify faculty involvement in the conduct of Research through the Basic Education Research Funding. As stipulated on the Chapter 1, Section 7(5) of the Republic Act 9155, the Department of Education should ensure to undertake national educational research and studies. Out from these studies, policies and improvements shall be crafted to bring forth institutional success that will continuously cascade unto its foundation. This action of the Department of Education reverberates among schools; from basic education to higher educational institutions". Proper funding is appropriated with respect to the nature and the scope of the approved research study. Research Capability is the totality of the rigorous participation of students and faculty in the attainment of research goals of an institution.

However, Salom (2017) asserted that despite the national and local efforts for research participation faculty members are still reluctant of to do research because of insufficiency in time, finances, skills and “guts”. Loading of teachers and other quasi – assignments should also be observed since it makes the teacher in between different task and priorities. Lastly, the writing skills of the teachers is a must to be strengthened. Research is different from other writing task that the teacher is usually engaged with. Lacanaria (2010) explained that research – based factors, research related factors and organization related factors are elements that “moderately hinders” our faculty in the conduct of research and applying post research activities such as program evaluation, action implementation, and research utilization. Despite the prevailing BERF and other “Paper Invitations” endorsed and spearheaded by CHED, the participation of faculty in research is still minimal; research is still a decorative value in our names and worst, in our library shelves. In a like manner, the result of *Survey of the Research Capability of Higher Education Institution* (2014) argues that despite the order for proper funding allotted for faculty researchers, research is still the least funded department compared to extension and instruction. This realization is true most importantly to non DepEd Schools like private Catholic Institutions. Research outputs are mostly half-baked, some are beautifully decorated with words, formatting and excessive use of citations to further impress the reviewees prior to the desired publications; while in terms of extensive implementation of the study and the judicious utilization of the data, no actions are made. For this reason, the management of research offices and research – aligned activities should be handled by competent research directors and project coordinators. In line with this, Ayala Claudia Odette & Garcia (2013) reminds us that research managers should instill unto his people the necessary motivation in the conduct of research. While educational qualifications and intensive exposure to research development is a must, the research manager should also be patient among his researchers. Schools must be generous in providing motivation and incentives for successful researchers. Both faculty and students must instill the value of academic perseverance in the course of research; for only in this kind of academic endeavor will the society triumph in front of the fast – changing world brought by change and globalization.

Students also play a vital role in the production of researches. Several studies on research attitudes about students, conducted locally and abroad (Butt & Shams, 2013; Clemena & Acosta, 2016; Ulla et al., 2017), reported that student’s attitude in research is vulnerable to several factors such as (1) academic pressures; (2) academic readiness; (3)

motivation from the faculty / adviser; and (4) the silent yet most of the time prevailing, the academic atmosphere of the institution. Academic pressures s being experienced by the students among his courses when there is nothing left for the student's time to compose his research. On the study of Ulla (2018), he explained that the too much academic oriented school activities burdened the students who wish to accomplish their research on the most "considerable time". These "academic challenges" increases student's anxiety on research that often result to their fear; finishing the thesis last and some cases, delaying their time of graduation. Critical to the study of Pambuena & Bernarte (2018) is the formation of research culture in the Laguna Campuses of the Polytechinic University of the Philippines. On the experience of PUP Laguna Campuses, the balance of good personal interpersonal skills will strengthen collaboration and maximizes individual potential in research. They also revealed that personal initiative is important to attain personal effectiveness in doing research. These claims only strengthen the idea of Ulla (2018) on the "excessive reliance of the researcher on his personal effectiveness, motivation and efficacy".

Academic Readiness is the degree where the student is ready, and prepared in encountering new learning experiences. Research requires readiness on both skills and attitude of the researcher. The amount of readiness or pre – service preparation, before a researcher embarked on a research endeavor, equips the researcher necessary experiences in crafting research topic, designing the methodology, crafting the instrument and analyzing the collected data. A positive research attitude, on the other hand, prepares the researcher on the heaviest rigor that the researcher may encounter in the gathering of data and locating primary and secondary sources that will set the strong grounds of his working research. Central to the study of Salom (2017); Toffel (2016); and Ulla et al. (2017) is the role of academic readiness and the cause of student anxiety in research. Problems encountered by the students in doing undergraduate research is (1) inconsistency in the alignment of case – objective – problems; (2) parallelism and technical writing; (3) a very short amount of patience in front of the rigors of research, often resulting to plagiarism and other internal issues. Faculty in the Basic Education Department enjoys the privilege of attending seminars in Research and Writeshops during the In – Service Training; on the other hand, research coaching and consultation is commonly offered to students and teachers who are currently taking research courses in the undergraduate and graduate level, respectively.

Motivation from the faculty and research advisers still plays a vital role in instilling research importance among students. The call of the Commission on Higher Education (CHED) to integrate research across the disciplines and programs in the tertiary education is a an important avenue for students to be exposed on research activities and stimulate their interest in doing “functional” and “productive” research projects for the further development of their respective disciplines. In line with the global context of the study, Thangiah & Dorairaj (2008), as cited by Arellano, Morano, & Nepomuceno (2012), emphasized that the exposure of the students in research enhances their critical thinking skills, social collaboration, creativity and consistency. The sense of being objective, because of the data collected, influences the researcher to be straightforward and honest on the discussion of his data and analyses. The development of research skills also enhances communication skills which is relevant to the global market and in their respective disciplines.

The actualization of the institutional research protocol is the culminating part of every school’s quest to research. The 21st century education prepared the global platform for innovation and knowledge production. This global platform provided different avenues for academic expression and intellectual innovations ranging from theoretical construction to product creation that aims to lessen the burdens of human life. On an institution like the school, the research culture is one of the driving force that crafts the school’s prestige in the academe. The dedication of each individual in the school progresses the idea of having an institutional research culture. On the study of Chavez (2014), research culture is the totality of the efforts coming from both student and teacher to excel in their own disciplines by surviving the research rigor. The application of research data is one of the challenges associated to the actualization of the research protocols because change is never an easy process. The acceptance of flaws and inconsistencies in the system or in the school is a challenge to administrators and affected stakeholders; however, accepting the value of research assures objectivity in decision making and redirects all efforts to the problem that must be solved.

Chapter 3

Research Methodology

This chapter presents the methodology used for this study. This further concentrates on the research design, description of respondents, sampling methods, research environment and instruments used, as well as the statistical tools utilized for the interpretation and analysis of data gathered.

Research Design

The researcher used a descriptive – correlational design to discover the role of research skills in the development of research attitude among students and faculty of San Felipe Neri Parochial School, Sacred Heart of Jesus Catholic School and Jaime Cardinal Sin Learning Center. This will involve collection of research data through survey method, from a researcher – made questionnaire.

The research follows a Descriptive – correlational design. It is a form of quantitative research design that aims to describe the relationship of variables by providing an indication of how one variable may predict another. In this study, the research skills (an independent variable) will determine up to what extent it influenced the attitude of the respondents towards research writing. Data was collected from students and faculty members of the Senior High School Department at San Felipe Neri Parochial School. Participants will complete a set of questionnaire.

Research Respondents

The researcher asked the participation of randomly selected students and faculty from the Senior High School Department of RCAM-ES Cluster Schools. The combined senior high school population for the Cluster 3 School is 610. The school has a total of 40 faculty (full – time) and 10 part time faculty. The student's age are ranging from 17 to 19 students, while the teachers age are ranging from 22 to 45 years old.

Population and Sampling Scheme

The Senior High School students and faculty of the San Felipe Neri Parochial School will be involved in the study since they are exposed more in research activities than the Junior High School. The senior high students has research – aligned subjects such as Practical Research 1, Practical Research 2, Inquiry, Investigation and Immersion

Subject and Entrepreneurship. For the faculty, research is an integral part of their duties and responsibilities. As part of their professional development, the faculty are tasked to create their own action researches, every year. As stated in the Research Manual of the School, every faculty members of the school enjoys the position of being a teacher, and a researcher. Every research output culminates through a research congress, every May of the next academic year.

The respondents was chosen using a stratified random sampling technique, wherein students and faculties was drawn from respective groups / sections and departments. This collection of clusters is inside the population where the sample will came from. Proportional allocation sampling collection will be utilized to determine the total number of sample per strata. As the stratum are subsume inside the population, the samples that will be collected will represent their own strata.

Research Environment

The research environment of the study is the San Felipe Neri Parochial School, Sacred Heart of Jesus Catholic School and Jaime Cardinal Sin Learning Center. The San Felipe Neri Parochial School is a PAASCU Accredited Level II School and at the same time PEAC Certified School. With the accredited status on its name, research is an integral part of the school system. Decision Making and School plans are evaluated statistically consistent with the objectives of the program and the school improvement plans.

San Felipe Neri Parochial School is a Basic Education Institution that offers Kinder Education to Senior High School. Research is introduced as early as Grade 6 through Exploratory Papers; Grade 7 to Grade 9 through Action Researches; Grade 10 through Science Investigatory Projects; Grade 11 through Qualitative Research Journal and Photo Voice Project and Grade 12 through a Formal Research Investigation. San Felipe Neri Parochial School is also part of the Roman Catholic Archbishop of Manila – Educational System and is part of the Cluster 3.

Sacred Heart of Jesus Catholic School is a PAASCU Level II Accredited School; it offers Senior High School with Academic Track and TechVoc as courses offered. Jaime Cardinal Sin Learning Center is a PAASCU Accredited School Level. The cluster school is managed by 1 Director (religious); 1 Assistant Director (religious) and 1 Principal (lay). Subject Area Coordinators and the Research Coordinator are also assigned on a cluster basis.

Research Instrumentation

The research instrument of the study is the three – year old research skills and research attitude survey of the school. The research skills survey of the school is based on the research competencies enumerated by the Department of Education and the School's Research Manual. The questionnaire is composed of two parts. The first part of the questionnaire elicits the profile of the respondents according to age, sex, grade level, track/strand and academic achievement in PR 1, PR 2 and Entrepreneurship Subjects (for student respondents) to age, sex, educational background and years of service in the teaching profession (for the faculty respondents). The second part of the survey elicits the research skills of the respondents according to (1) Pre – Research Writing; (2) On – going Research Writing; (3) Post – Research Writing. The third part of the survey requires the respondents to determine the level of their attitude associated with research in terms of (1) Research Writing; (2) Research Collaboration; (3) Research Contribution; (4) Research Publication.

Validation of Research Instrument

Proceeding to pilot and actual conduct of study, the instrument will be subjected to construct validation by the research adviser and further content validations will be made by school administrators. The survey instrument was pilot tested on 20 Senior High School Students and 10 Faculty from other cluster 3 Schools (Sacred Heart of Jesus Catholic School and Jaime Cardinal Sin Learning Centre). Respondents during the pilot study will not be part of the actual research data gathering. A reliability test will be conducted using the Cronbach alpha test to assure internal consistency on the construction of the questionnaire.

The researcher made questionnaire, for Research Skills, used in this study has been validated through *Cronbach Alpha Test of Reliability* with a ***Cronbach Alpha Score of 0.941 for the Research Skills Questionnaire***. The statistical result revealed that there is a high level of internal consistency on the Likert Scale Survey constructed.

The researcher made questionnaire, for Research Attitude, used in this study has also been validated through *Cronbach Alpha Test of Reliability* with a ***Cronbach Alpha Score of 0.937 for the Research Skills Questionnaire***. The statistical result revealed that there is a high level of internal consistency on the Likert Scale Survey constructed.

Research Procedure

The researcher uses the “research attitude and research skills survey” of the RCAM-ES Cluster 3 Schools. Prior to the creation of the questionnaire, the researcher collected research competencies and skills that may bear towards the attitude of both student and faculty researchers. The survey rest its core on the DepEd Competency for Research, Basic Education Research Agenda and the Institutional Research Agenda of San Felipe Neri Catholic School. The researcher will collect students from Sacred Heart of Jesus Catholic School and Jaime Cardinal Sin Learning Center during the dry – run of the questionnaire. The dry – run will allow the researcher to conduct validity testing on the questionnaire through Cronbach Alpha test.

Using the Krejcie – Morgan table for Sample and Population, the researcher will determine the sample size. From the determined sample size, the researcher will apply stratified random sampling. The sample per strata will match the total number of sample, as stated on the result of Krejcie and Morgan Table. Survey will be given to the students and faculty through Google Questionnaires. The results of the survey will be treated through statistical means. At the end of the study, the results will help the researcher in crafting a research protocol for the school that will aim to strengthen the connection between research attitude and research skills.

Data Gathering Procedure

The data for the study is acquired from the Senior High School Student and Faculty of San Felipe Neri Parochial School. Prior to the actual data collection, a letter of permission was given to the School Principal of San Felipe Neri Parochial School where the study is opt to be conducted. The result of the dry – run of the questionnaire will result to revisions and alignment; as suggested by the editors, grammarian and content validators.

The survey will be run distributed through the use of Google Forms and will be conducted during the Computer Break of the Students. This will be facilitated by the researcher and the computer teacher.

Data will be organized through the help of excel tabulations and will be analyzed through statistical program for social sciences (SPSS).

Statistical Treatment

The following statistics are performed in the data analysis:

Weighted Mean. The weighted mean was used to get the general rating of the student and faculty's level of research skills and research attitude. It follows the formula:

Analysis of Variance (ANOVA). The analysis of variance is a parametrical test that aims to measure the difference between datasets. The ANOVA will be used in this study to determine whether there is a significant difference on the research skills and research attitudes among SHS Students and Faculty. Using SPSS, the researcher will be able to test the hypothesis of the study.

Chi Square. The test analysis for significant relationship and, or, association is called Chi Square. The chi square tests whether the dependent variable is dependent or independent to the independent variables (inputs) of the study.

Multivariate Analysis. A test for significant effect across variables. It best fits with the study because the specific question aims to determine the extent of significant influence of the research skills with research attitude.

Statistical Program for Social Sciences. SPSS program was utilized for the computation of ANOVA, Chi Square and Multivariates. Descriptive analysis was also conducted through SPSS.

CHAPTER 4

Results and Discussion

This part presents the results of the study after the analysis of data gathered by the researcher in crafting this research paper. This part also considers the importance of the review of related literature and studies that might support the data collected by the researcher pertaining to the variables tested.

Profile of Senior High School Student Respondents

Table 1

Profile of the Respondents according to Sex

Sex	Frequency	%
Male	157	43.3
Female	206	56.7
Total	**363**	**100.0**

Table 1 above shows the distribution of students in terms of sex. Majority of the respondents are female, which is 56.7% of total sample population; while male is composed of 153 respondents or 43.3%. Many researches about research skills have shown the non – significant nature of sex with research skills. Pambuena & Bernarte (2018) revealed that sex is independent from research skills. They further suggest that there is no “research roles “ for sexes. In the words of Hanover Research Journal (2014), building a collaborative research means breaking down walls over sexes. Moreover, Toffel (2016) suggest that the research field is never for the “dominion” or control of a single sex ruling. He suggested that research is a product of various individuals regardless of sex, age and educational background.

In the case of Cluster 3 Schools, for the past 3 years of the implementation of Senior High School, most of the students enrolled are females. Despite the prevailing number of the females demographically, gender roles should not be a hindrance in developing research skills. For the past years, the practice in research collaboration as practiced by the school cluster system does not rest on a group with one sex. Students are free to form their groups regardless of their sexual orientation.

Table 2

Profile of the Respondents according to School

School	Frequency	%
SAN FELIPE NERI CATHOLIC SCHOOL	259	71.3
SACRED HEART OF JESUS CATHOLIC SCHOOL	69	19.0
JAIME CARDINAL SIN LEARNING CENTER	35	9.6
Total	**363**	**100.0**

The sample population came from cluster 3 schools. The table above presents that 259 respondents (71.3%) came from San Felipe Neri Catholic School , 69 (19.0%) students came from Sacred Heart of Jesus Catholic School and 35 (9.6%) respondents came from Jaime Cardinal Sin Learning Center. On the three school of Cluster 3, the San Felipe Neri Catholic School in Mandaluyong has the biggest population, followed by Sacred Heart of Jesus Catholic School and last, Jaime Cardinal Sin Learning Center.

Each school has a unique way of instilling the culture of research in their institution. Since the RCAM-ES System has their own strategic goals that articulates the school's philosophy, vision and mission, it reassures that the school has their own way of promoting their programs and exhibiting their uniqueness among other schools (Evans, 2007; Taylor et al., 2011)

Table 3

Profile of the Respondents according to Grade Level

Age	Frequency	%
Grade 11	123	33.9%
Grade 12	240	66.1%
Total	**363**	**100.0**

The table above shows the distribution of the respondents according to Grade Level. According to the table above, most of the respondents came from the Grade 12 Level or 66.1% of the sample population; while 123 or 33.9% are from the Grade 11. According to the study of Muthuswamy et al. (2017), grade level may have an influence to

the development of research skills and the formation of research attitude. Following the idea of maturity and development, quantitative growth may induce change in the acquisition of skills and profundity of experience; contributing to learning and development.

Table 4

Profile of Respondents according to Age

Age	Frequency	%
16	10	2.8
17	123	33.9
18	153	42.1
19	61	16.8
20 - ABOVE	16	4.4
Total	**363**	**100.0**

The table above shows the age distribution of the respondents. It can glean from the table that most of the respondents aged 18 which is 153 or 42.1% of the sample distribution. This is followed by 17 years old which is represented by 123 students or 33.9% of the sample population. Next are those 19 years old with 61 student or 16.8%. Students who are 20 and above are 16 in number or 4.4% and lastly, 16 years old which is 10 in number or 2.8%.

Several researches has already implied (Rezaei & Miandashti, 2013; Siamian, Mahmoudi, Habibi, Latifi, & ZareGavgani, 2016) that age does not matter with research. However, in the study of Carruthers (2018) and Khan & Inamullah (2011), they associated age as a form off maturity that creates a quantitative changes and defined by qualitative growth. In this study, age is an important variable for it groups the students not only in terms of their chronological age but also with their skills and competence.

Similarly, on the study of Gallos (2015), covariate analysis lead to the strong significance with age, gender, grade level and tacks. This is associated to the skills related to the students that develops continuously and consistently on the course of their educational training. Age, as a variable, adds importance to the development of research skills among students. Research attitude is deemed to change as a student grows chronologically. This change that is brought by age has been associated to both skills and attitude of the students, as well as his holistic formation.

Table 5

Respondents Profile according to Track / Strand

Track / Strand	Frequency	%
STEM	105	28.9
ABM	99	27.3
HUMSS	55	15.2
TOURISM	25	6.9
HE	19	5.2
ICT	60	16.5
Total	**363**	**100.0**

The distribution of Track / Strand is presented at Table 1.4. Most of the respondents are STEM students, represented by 105 students (28.9%); followed by ABM students which is compose of 99 students (27.3%); ICT has 60 participants (16.5%); followed by HUMSS which has 55 respondents (15.2%); Tourism has 25 participants (6.9%) and last HE which has 19 participants or 5.2%.

The study of Gallos (2015) revealed that tracks has a statistically defined causation to the research ability of the students since every track / strand celebrated uniqueness in terms of mental training, capacity building and theoretical application.

Table 6

Respondents Academic Performance in PracResearch 1

Grades	Frequency	%
Advanced (90 – above)	37	15.81
Proficient (85 – 89))	112	47.86
Advancing Proficient (80 – 84)	70	29.91
Developing (75 – 79	15	6.41
Total	**234**	**100%**

The table distribution above revealed that most of the participants has a Proficient Grade (85 – 89) on Practical Research 1 or 47.86%. While second to the biggest number are those with Advancing Proficient classification or those who have grades of 75 – 79. Third are those who are advanced students (90 – above grades) that has a total of 37 students or 15.81%. Lastly, the developing students who go 75 – 79 in their Practical Research 1 Subject (6.41%).

Table 7

Respondents Academic Performance in PracResearch 2

Grades	Frequency	%
Advanced (90 – above)	38	16.24
Proficient (85 – 89))	86	36.75
Advancing Proficient (80 – 84)	82	35.04
Developing (75 – 79)	24	10.26
Beginning (74 – below)	4	1.71
Total	**234**	**100**

Table 6 shows the grade distribution of the students for their Practical Research 2 Subject. As show in the table above, most of the respondents are from the Proficient Level (85 – 89) which is 36.75% of the total sample size. Also, the Advancing Proficient Group got the second rank with a total number of 82 (35.04%). The Advanced Group ranked third with a total number of 38 participants or 16.24%. The developing group ranked 4th with 24 students (10.26%). Lastly, the Beginning group that has 4 students or 1.71%.

Table 8

Respondent's Academic Performance in Entrepreneurship

Grades	Frequency	%
Advanced (90 – above)	68	29.06
Proficient (85 – 89))	106	45.30
Advancing Proficient (80 – 84)	56	23.93
Developing (75 – 79	4	1.71
Total	**234**	**100%**

Table 8 shows the grade distribution of the students for their Entrepreneurship Subject. As shown in the table above, most of the respondents are from the Proficient Level (85 – 89) which is 45.30 or 106 students of the total sample size. Also, the Advanced Group got the second rank with a total number of 68 (29.06%). The Advancing Proficient Group ranked third with a total number of 56 participants or 23.93%. The developing group ranked 4th with 4 students (1.71%).

Table 9

Academic Performance of Students in English 11

Grades	Frequency	%
Advanced (90 – above)	23	17.8
Proficient (85 – 89))	46	35.7
Advancing Proficient (80 – 84)	48	37.2
Developing (75 – 79)	11	8.5
Beginning (74 – below)	1	.8
Total	**129**	**100%**

The table distribution above revealed that most of the participants has an Advancing Proficient grade (80 – 84) on English or 37.20%. While second to the biggest number are those with Proficient classification or those who have grades of 85 – 89, which has 48 respondents or 37.2%. Third are those who are advanced students (90 – above grades) that has a total of 23 students or 17.8%. Fourth, the developing students who got 75 – 79 in their English Subject, which is 11 or 6.41%. Lastly, a student respondent happened to fall on the Beginning level that got a 74 – below grade.

Table 10

Respondents Academic Performance in Mathematics 11

Grades	Frequency	%
Advanced (90 – above)	16	12.4
Proficient (85 – 89))	39	30.2
Advancing Proficient (80 – 84)	55	42.6
Developing (75 – 79	18	14.0
Beginning (74 – below)	1	.8
Total	**129**	**100%**

The table distribution above revealed that most of the participants has an Advancing Proficient grade (80 – 84) on Mathematics; 55 or 42.60%. While second to the biggest number are those with Proficient classification or those who have grades of 85 – 89, which has 39 respondents or 30.2%. Third are those who are developing students (75 - 79) that has a total of 18 students or 14.0%. Fourth, the advanced students who got 90

– above grades in their English Subject, which is 16 or 12.4%. Lastly, a student respondent happened to fall on the Beginning level that got a 74 – below grade.

Table 11

Respondents Academic Performance in Filipino 11

Grades	Frequency	%
Advanced (90 – above)	26	20.2
Proficient (85 – 89))	65	50.4
Advancing Proficient (80 – 84)	35	27.1
Developing (75 – 79)	3	2.3
Total	**129**	**100.0**

Table 10 shows the grade distribution of the students for their Filipino Subject. As shown in the table above, most of the respondents are from the Proficient Level (85 – 89) which is 50.4 or 65 students of the total sample size. Also, the Advancing Proficient Group got the second rank with a total number of 35 (27.1%). The Advanced Group ranked third with a total number of 26 participants or 20.2%. The developing group ranked 4th with 3 students (2.3%).

Table 12

Respondents Accomplished Researches

Accomplished Researches	Frequency	%
None	31	8.5
1 – 3	177	48.8
4 – 6	96	26.4
7 – 9	59	16.3
Total	**363**	**100.0**

Table 12 presents the number of accomplished researches made by the student. According to the table above most of the students has 1 – 3 accomplished researches since their Junior High School days. This sums to 177 and 48.8% of the total sample population. Next are students who accomplished 4 – 6 researchers which is 96 or 26.4%. Third, 59 students said that they have almost 7 – 9 accomplished researches which account to 16.3% of the sample or 59 out of 363. And lastly, only 31 said that they have no accomplished research activities or 8.5%.

Profile of Senior High School Faculty

Table 13

Faculty Respondents Profile according to Sex

Sex	Frequency	%
Male	15	30.0
Female	35	70.0
Total	**50**	**100.0**

Table 13 above shows the distribution of Senior High School Faculty in terms of sex. Majority of the respondents are female, which is 70% of total sample population (35); while male is composed of 15 respondents or 30%. Many researches about research skills have shown the non – significant nature of sex with research skills. Pambuena & Bernarte (2018) revealed that sex is independent from research skills. They further suggest that there is no "research roles " for sexes. On the study of Pamatmat (2016), she mentioned the non – significant bearing of sex in the profile of the faculty vis – a – vis research productivity. She defended that research skills are competencies harnessed by time and dedication. Alhija & Majdob (2017) further elaborated that "there is no certainty" that the school will achieve a certain degree of research success if most of its researcher is male or female. In the words of Hanover Research Journal (2014), building a collaborative research means breaking down walls over sexes. Moreover, Toffel (2016) suggest that the research field is never for the "dominion" or control of a single sex ruling. He suggested that research is a product of various individuals regardless of sex, age and educational background.

Table 14
Faculty Respondents Profile according to School

School	Frequency	%
SAN FELIPE NERI CATHOLIC SCHOOL	22	44.0
SACRED HEART OF JESUS CATHOLIC SCHOOL	17	34.0
JAIME CARDINAL SIN LEARNING CENTER	11	22.0
Total	**50**	**100.0**

The sample population came from cluster 3 schools. The table above presents that 22 respondents (44.%) came from San Felip`e Neri Catholic School , 17 (34.0%) faculty

came from Sacred Heart of Jesus Catholic School and only 11 (22%) faculty respondents came from Jaime Cardinal Sin Learning Center. On the three school of Cluster 3, the San Felipe Neri Catholic School in Mandaluyong has the biggest population, followed by Sacred Heart of Jesus Catholic School and last, Jaime Cardinal Sin Learning Center.

Each school has a unique way of instilling the culture of research in their institution. Since the RCAM-ES System has their own strategic goals that articulates the school's philosophy, vision and mission, it reassures that the school has their own way of promoting their programs and exhibiting their uniqueness among other schools (Evans, 2007; Taylor et al., 2011)

Table 15

Faculty Respondents Profile according to Age

Age	Frequency	%
19 – 23	11	22.0
24 – 28	13	26.0
29 – 33	15	30.0
34 – 38	7	14.0
39 – 43	4	8.0
Total	**50**	**100.0**

The table above shows the age of the faculty respondents. Most of the faculty are age 29 – 33 with a frequency of 15 or 30%. It is followed by 24 – 28 years old with 13 respondents or 26% while those who age 19 – 23 are 11 in number or 22%. The least of the age are those 34 – 38 years and 39 – 43 years old with 7 (14%) and 4 (8%), respectively.

Several researches has already implied (Rezaei & Miandashti, 2013; Siamian et al., 2016) that age does not matter with research. However, in the study of Carruthers (2018) and Khan & Inamullah (2011), they associated age as a form off maturity that creates a quantitative changes and defined by qualitative growth. In this study, age is an important variable for it groups the students not only in terms of their chronological age but also with their skills and competence

The youngest among the respondents is a 20 year old faculty from the senior high school department and the oldest is 43 year old faculty. Both faculty, the youngest and the oldest, as of this writing, pursue research projects for the senior high school department. This only proves that the tasking of research does not depend on the age of

the researcher or the tenure of the faculty. Research provides equal opportunity for all the ages.

Table 16

Faculty Respondents Profile according to Educational Background

Educational Background	Frequency	%
BACHELORS	8	16.0
MASTERS WITH EARNED UNITS	31	62.0
MASTERS WITH COMPREHENSIVE EXAM	4	8.0
MASTERS GRADUATE	6	12.0
DOCTORATE WITH UNITS	1	2.0
Total	**50**	**100.0**

Table 16 presents the profile of the Senior High School Faculty respondents based on their Educational Background. 31 participants or 62% has masters with earned units; while 8 faculty is teaching with a bachelor's degree (16%), 6 faculty is already a master's degree holder or 12%. Four faculty are on their way to their master's degree and already passed the comprehensive examination. One faculty has Doctorate Units in Education (Ed. D program). Ulla et al (2017) explained that while educational background adds to the qualification of the respondents, it doesn't statistically satisfy the research skills of the respondents. Research is a skill gets inside of every teacher or students inside the realms of the academe. The role of research in the contribution of new knowledge and reverification of existing knowledge surpass every educational qualifications. Once equipped with a higher standard in terms of education, the role of the faculty in research also intensifies.

Table 17

Faculty Respondents Profile according to Years of Teaching

Years of Teaching	Frequency	%
1 - 3 YEARS	12	24.0
4 - 6 YEARS	22	44.0
7 - 9 YEARS	7	14.0
10 - 12 YEARS	7	14.0
13 - 15 YEARS	2	4.0
Total	**50**	**100.0**

The table above presents the distribution of the SHS Faculty in terms of Years of Teaching. 22 of the respondents has 4 – 6 years of teaching service or 44%. Next are

those respondents that has 1 – 3 years of teaching service; there is a total of 12 respondents or 24% who belong to this group. Both that rank in the same level are respondents that has 7 – 9 years of teaching and 10 – 12 years of teaching; they are represented by 7 teachers which account to the 14% of the population. Lastly, teachers that has 13 – 15 years of teaching represented by 2 SHS Faculty or 4% of the total sample population.

Table 18

Faculty Respondents Profile according to Accomplished Researches

Accomplished Researches	Frequency	%
NONE	11	22.0
1 – 3	30	60.0
4 – 6	8	16.0
7 – 9	1	2.0
10 – above	0	0
Total	**50**	**100 %**

Table 17 presents the number of accomplished researches made by the faculty. According to the table above most of the faculty has 1 – 3 accomplished researches. This sums to 30 respondents or 60% of the total sample population. Next are SHS Faculty who admittedly has zero accomplished researches. There are 11 faculty or 22% of the sample population who belong to this category. Third are SHS Faculty who accomplished 4 – 6 researchers which is 8 or 16%. Fourth, only 1 faculty said that they have almost 7 – 9 accomplished researches which account to 2% of the sample population.

On the study of Ulla, Barrera, & Acompanado (2017), he found out that the reason for the faculty's ever decreasing research productivity is the high regard of the Philippine Education to many academic related forms that stretches from "A to Z". These academic documents, that most of the time disregard research, made the teachers less of time in doing research works. Congruent to the study of Kutlay (2012) and Morales (2016), the Philippine academic atmosphere is also one that delays research productivity among teachers. Accordingly, heavy academic load, jam-packed time table and lack of teacher training impeded the attainment of the Department of Education's Research Agenda (2016). In addition to it, the study of Bughio (2015) explained that research productivity through research publications contribute to innovations and disciplinary progress. It provides means to discover silent solution and alternative means of looking on the problem set by our own hasty assumptions. Lastly, Grima-Farrell (2017) defended that the

evidence – based nature of research will help the school to align its programs and intervention plan to the most important need of its clientele. Research data and published researches also adds to school decision making and leads it to practical applications of interventions rooted to empirical process.

On the Research Skills of Senior High School Students and Faculty

Table 19

Respondents Research Skills (Summary)

	Pre – Writing	On – Going Writing	Post – Writing	Overall Mean	Standard Deviation
Students	**4.51 (S/F)**	**4.31 (MS/MF)**	**4.48 (S/F)**	**4.44 (S/F)**	**0.73**
• *Grade 11*	*4.33*	*4.09*	*4.29*	*4.24*	*0.79*
• *Grade 12*	*4.68*	*4.52*	*4.67*	*4.63*	*0.66*
Senior High School Faculty	**4.08 (MS/MF)**	**4.07 (MS/MF)**	**4.38 (S/F)**	**4.18 (MS/MF)**	**0.51**

Research Skills Legend: 5.16 – 6.00 , Very Skillful, very familiar (VS/VF); 4.33 – 5.15 , Skillful, familiar (S/F); 3.50 – 4.32, Moderately Skillful, Moderately familiar (MS/MF); 2.67 – 3.49, moderately unskillful, slightly familiar (MUS / SF); 1.84 – 2.66, could learn but with difficulty, unfamiliar (WD/UF); 1.00 – 1.83, Needs Significant Improvement, unfamiliar (NSI / UF)

Table 19 reflects the research skills of the respondents. As shown in the table above, research skills is divided into three parts. The pre – writing skills, on – going writing skills and post – writing skills. Gepila et al (2018), citing (Czarina Baraquiel Agcaoili & Susumu Oshihara, 2014), enumerated that research skills in the context of most researcher's experience may refer to the pre – writing skills; which includes the creation of research topic to the crafting of framework and specific problems, on-going writing skills refers to the actual writing process to the data – gathering, analysis and tabulation and action plan writing. Post –writing skills includes presentation of the research output, applying revisions and even publication.

On the table above, the students got a mean of 4.51 for pre – writing, 4.31 for on – going writing and 4.48 for post – writing. The overall mean of 4.44 which means student respondents are "skillful and familiar" on the required skills for research writing. With a standard deviation of 0.73, it only describe that the scores are close with one another and considered "exactly the same".

The senior high school faculty, on the other hand, has a 4.08 mean for pre – writing; 4.07 for on – going writing and 4.38 for post – writing. The over – all mean of the senior

high school faculty respondents is 4.18 which means "senior high school faculty are moderately skillful and moderately familiar" with the skills required in research writing.

Looking closer from the results of the study, the succeeding table presents the scores of the respondents in terms of research skills.

Table 20

Pre - Writing Skills among Respondents

1. Research Skills (Pre – writing Skills)	**Students**	**Verbal Interpretation**	**Faculty**	**Verbal Interpretation**
1.1. Brainstorming with friends / colleagues	4.76	S/F	3.98	MS/MF
1.2. Writing a research case	4.33	MS/MF	4.16	MS/MF
1.3. Identifying the research objective of the study.	4.63	S/F	3.72	MS/MF
1.4. Defining specific research variables	4.42	S/F	4.1	MS/MF
1.5. Crafting the Research Title	4.38	S/F	4.44	S/F
Total Mean	**4.50**	**S/F**	**4.08**	**MS/MF**
Standard Deviation	**0.18**		**0.26**	

Research Skills Legend: 5.16 – 6.00 , Very Skillful, very familiar (VS/VF); 4.33 – 5.15 , Skillful, familiar (S/F); 3.50 – 4.32, Moderately Skillful, Moderately familiar (MS/MF); 2.67 – 3.49, moderately unskillful, slightly familiar (MUS / SF); 1.84 – 2.66, could learn but with difficulty, unfamiliar (WD/UF); 1.00 – 1.83, Needs Significant Improvement, unfamiliar (NSI / UF)

Table 20 presents the summary of Pre – Writing Skills between Students and Senior High School Faculty. With an over-all mean of 4.50, the students related that they are "skillful and familiar" among the enumerated skills. The standard deviation of 0.18 reveals that the scores of the students are consistent and the same. On the other hand, the senior high school faculty got a mean of 4.08 or moderately skillful and slightly familiar. The standard deviation for the senior high school faculty is 0.26 which is small and scores can be look as "the same".

The pre – writing skills in research is defined by Arellano, Morano, & Nepomuceno (2012) as the foundational skills before "arriving to the core of the propose research study". Leggetter & Sapsed (2011) expounded the scope of pre – writing skills and mentioned that it is the stage of "creating the interest to form a specific area of concern; translating interest into a case prior to the formulation of research problem". As seen from the results above, students strength rest on the act of "brainstorming with friends / colleagues" while the teacher's strength can be seen from their skill of "crafting the research title". Both skills

are presented by the two groups of respondents as skillful and familiar. From the study of Jenkins, Healey, & R. (2010), they elaborated that students are most prone to research difficulty because of their own anxiety towards it. Research anxiety begins when the student didn't know what to do because he cannot see what interest him. Chavez (2014) aligns with the study of Jenkins et al by exploring the importance of pre – research skills among students and faculty. Accordingly, the ability of the faculty to transfer knowledge to the student can only be possible if they are discussing factual knowledge and is not talking about empirical data, innovations or research findings. Basic research skills involve the action of the researcher to connect with his locale and recognize the problem inside of it. Chapman (2010) explained that the pre – research skills should be satisfied first before a teacher or a professor requires his student to engage on the field of research. Pambuena & Bernarte (2018) citing the work of Jhing (2009) explained that the very foundation of a strong research skills depends on the skill of a researcher to "rediscover" and "reapply" previous knowledge in the context of the present day world.

The pre-writing skills of the research is pertinent to the development of a good "body of the research". As for the students, the role of collaboration in research writing is crucial to the formation of a new research interest. The freshness of ideas coming from different individuals was defended by Delgadillo (2016) as "contributory to probable problems often overlooked by our conscious minds". On her discussion, she emphasized that collaboration may take in the forms of age – group collaboration, interest collaboration and even district after district collaboration; it is more than that of a 2, 3 or more researchers combined to create a very powerful research output. The idea of collaboration among researchers embraced academic creativity. The idea of thoughts sharing and combining and forming it in one common core, requires an amount of effort to craft each differing sentiments and focus it on the commonalities of the research group. If collaboration is successful, it will lead to conceptualization which is a pre – writing competency. Also, Payne et al. (2011) revealed that research skills are made strong by collaboration. In a research study he conducted among educators and clinicians, he noted that "collaborative activities have resulted to a significant achievements in each research theme, manifest in the increasing volume of dissemination activities, and the publication of 337 papers in clinical and academic journals".

Crafting the research title is the strength of the faculty and it finds congruence from the study of Evangelista & Arellano-Hernandez (2016) which highlighted the importance of an effective research title that shows not only the overview of the study but a strong

alignment with the variables understudy. Research titles are considered door-way to the research problem. It radiates both impression and confidence that the whole research is encapsulated on the whole research title. Creswell (2012), citing Glesne & Peshkin (1992) advised the researchers to create a “working title” before arriving to a final title. It is being regarded as a “wise action” since that practice allows the researcher to be focus on the variables of his study. Pamatmat (2016) revealed that one of the barriers that hinders faculty’s research productivity is the “application of the competencies that requires it”. Moreover, she discussed that it is also the motives that the faculty is looking, if one wishes to finish a research, a thesis or even a dissertation.

The next table presents the need for on – going writing skills. The on – going writing skills or “the conduct of research skills” (Evangelista et al., 2016) are set of competencies expected to be exhibited by the researcher in the stage of writing the essential parts of the study. It, most of the time, includes the process of writing the introduction up to the stage of data gathering procedure, tabulation, analysis and interpretation of data. Evangelista et al (2016) even commented that

> *“not all students can write. This is a fact that the researcher can learned upon teaching the research course. There were students who were unable to formulate a sentence which is logical and free from grammatical errors. This is one challenge that the student-researchers need to face so that they may be able to arrive at a meaningful research paper.” (p. 12)*

The results of Table 21 reveals that on – going skill captures the bulk of every research endeavor. On – going research skills provides the research the most important competencies that he will endure as write his own manuscript. On – going skills include research competencies from concept writing to the development of research problems, to the research design, instrumentation until the analysis and interpretation of data. The table provided descriptively that for the students, they looked the need on writing the theoretical construct of the study as one of their challenges and the validation of instrument, as well. In this concern, the researcher may relate the experience of San Felipe Neri Catholic School Grade 11 (AY 2018 – 2019) students during their qualitative research subject. One of the difficulty, surfaced during the oral defense, is the weak foundation of their analysis because of the insufficiency on their theoretical grounds. During the quantitative research subject, the formation of questionnaire is one of the difficulties discovered and that experience support the data about the validation of the instrument.

The challenge perceived by the faculty is the writing of introduction. This may be associated to the difficulties of the faculty respondents in crafting their researches. This may somehow reflect the attitude of the researchers in the field of research, since introduction is the beginning of the research paper. If on the beginning part they found difficulty, how much more on the part of the related literature? Methodology? The analysis of data?

Table 21

On - going Writing Skills among Respondents

2. Research Skills (On - going Writing Skills)	Students	Verbal Interpretation	Faculty	Verbal Interpretation
2.1. Writing the introduction of the study	4.64	S/F	3.54	MS/MF
2.2. Identifying the appropriate theoretical construct	4.07	MS/MF	4.18	MS/MF
2.3. Creating the Input – Process – Output Framework of the Study	4.55	S/F	3.78	MS/MF
2.4. Establishing alignment with the variables and the specific questions.	4.33	MS/MF	4.10	MS/MF
2.5. Understanding the scope and delimitation of the study.	4.58	S/F	3.96	MS/MF
2.6. Defining operationally relevant terms mentioned in the study.	4.38	S/F	4.18	MS/MF
2.7. Writing a coherent review of related literature and studies.	4.29	MS/MF	4.26	MS/MF
2.8. Choosing the most appropriate resources for literature and studies review.	4.41	S/F	4.20	MS/MF
2.9. Designing the research methods	4.21	MS/MF	3.90	MS/MF
2.10.Constructing the research instrument	4.11	MS/MF	3.74	MS/MF
2.11. Validating the research instrument.	4.07	MS/MF	3.96	MS/MF
2.12. Tabulating the results.	4.17	MS/MF	3.76	MS/MF
2.13. Applying appropriate statistical treatment.	4.09	MS/MF	4.34	S/F

2.14. Discussing the collected data.	4.39	S/F	4.02	MS/MF
2.15. Writing with coherence the interpretation and analysis of data.	4.17	MS/MF	4.38	S/F
2.16. Creating the recommendation of the study.	4.44	S/F	4.84	S/F
Total Mean	**4.31**	**MS/MF**	**4.07**	**MS/MF**
Standard Deviation	**0.19**		**0.31**	

Research Skills Legend: 5.16 – 6.00 , Very Skillful, very familiar (VS/VF); 4.33 – 5.15 , Skillful, familiar (S/F); 3.50 – 4.32, Moderately Skillful, Moderately familiar (MS/MF); 2.67 – 3.49, moderately unskillful, slightly familiar (MUS / SF); 1.84 – 2.66, could learn but with difficulty, unfamiliar (WD/UF); 1.00 – 1.83, Needs Significant Improvement, unfamiliar (NSI / UF)

As shown in the table above, the on – going writing skills of the respondents (for both students and faculty) is moderately skillful. Also, the respondents are slightly familiar with the said competencies. The top three skills among the students are as follows: (1) Writing the Introduction of the study, with a mean of 4.64; (2) Understanding the scope and delimitation of the study, with a mean of 4.58; and (3) Creating the Input – Process – Output Framework of the Study, with a mean of 4.55. The three skills mentioned falls under Chapter 1 one of the study. These skills are essential to the construction of Chapter 1 or the Introduction of the Study. For Toffel (2016), he remain consistent with the discussion of Gallen, Graves, & Scheller Wolf (2016) about writing the Chapter 1 of every thesis and dissertation that explains the crucial role of alignment and consistency in the formation of an effective research manuscript. The role of the introduction of the study discusses the most important concern that creates the research problem; in particular, the global thoughts that influences the problem, the local context of the problem and the rationale behind the problem.

In the study of Evangelista et al (2016), they explained that most students in Batangas State University has difficulty in the writing of introduction. They found out that the concern of students is in the writing itself since they do not have the skills in identifying the global and local perspective of their problem. Creating the Input –Process – Output Framework is the most challenging out of the top three skills that the students evaluated. It is also one of the perceived difficulties among students and faculty (Chapman, 2010; Grima-Farrell, 2017a; Ulla et al., 2017). The importance of knowing your variables was given emphasis by Creswell (2012); accordingly, our variables influence our statistical

methods and even our thinking on what to test on our study (*whether it is a test of causality or significant relationship)*.

On the case of the Senior High School Faculty, the skill on creating the recommendation of the study, with a mean of 4.84 ranked as the highest of all evaluated skills for ongoing writing stage. It is followed by the skill on writing with coherence the interpretation and analysis of data, with a mean of 4.38. Third is the skills on applying appropriate statistical treatment with a mean of 4.34. As shown from the table, the average for the ongoing skills of the faculty is 4.07 which means they are moderately skillful and moderately familiar about the skills enumerated. With a standard deviation of 0.31, it means that their score is very similar with one another.

Salom (2017), citing Lacanaria (2008), revealed that challenges among faculty researchers are caused by the too much academic load given. Some faculty researchers who were able to finish their researches have shown limited extent on the conduct, dissemination and utilization of research data. Participation of faculty on research is very minimal too.

The action of the Department of Education through the Department of Education Order No. 43 Series of 2015 highlighted the most important role of teachers in research writing towards the attainment of educational reforms and advancement". From the results of the survey, it can be gleaned that the strength of the teachers is on writing recommendation, writing research reports coherently and applying appropriate statistical treatment; this is attributed to the practice of the teachers in doing grades and reports that made them moderately skillful in giving recommendations and skillful in statistics and analysis.

This is the same analysis provided by Alhija & Majdob (2017) that "teachers carries the same role in computing grades and scores, in computing research data and survey results. Their mastery in computing the grades of their students is also the same mastered skilled they use in computing the mean, tabulating of scores and reporting of results.

Worth mentioning and reflecting is the study of Tang & Chamberlain, (2006) who deviate from the results of early discussion. According to the results of his study, while administrators has a favorable attitude towards research writing, teachers believe that they should be asked whether to do research, or to teach; but never both. This may be the reason, that on the results of the survey for faculty, the lowest for the group is the writing of introduction. It should be noted that the introduction is the beginning of every research

manuscript. While the teachers can write coherent analysis and interpretation, they tend to be idle in doing most parts of the study.

The skills in research writing is also the focus of Ramirez (2010). According to her, faculty members considered a need for a "push" for competence, since this motive together with time is considered the greatest barrier to research engagement. She continued that while there are promising faculty – researchers, some of them are demotivated because of academic loads, skills and time pressure. On the experience of San Felipe Neri Catholic School, some of the subject area departments failed to comply with the necessary research submissions because of the too much academic work and preparation. While there are research proposals that has been prepared at the beginning of the school year, faculty researchers failed to comply with their research targets because of the too much academic preparations and documents to submit.

Table 22

Post Writing Skills among Respondents

3. Research Skills (Post – writing Skills)	**Students**	**Verbal Interpretation**	**Faculty**	**Verbal Interpretation**
3.1. Creating a powerpoint report for the study	5.05	S/F	4.72	S/F
3.2. Presenting your report with a panel	4.33	MS/MF	4.36	S/F
3.3. Articulating effectively the result of your data	4.32	MS/MF	4.18	MS/MF
3.4. Integrating the intervention plan to the locale of the study.	4.17	MS/MF	4.2	MS/MF
3.5. Submitting the manuscript for journal publication	4.55	S/F	4.48	S/F
Total Mean	**4.50**	**S/F**	**4.08**	**MS/MF**
Standard Deviation	**0.18**		**0.26**	

Research Skills Legend: 5.16 – 6.00 , Very Skillful, very familiar (VS/VF); 4.33 – 5.15 , Skillful, familiar (S/F); 3.50 – 4.32, Moderately Skillful, Moderately familiar (MS/MF); 2.67 – 3.49, moderately unskillful, slightly familiar (MUS / SF); 1.84 – 2.66, could learn but with difficulty, unfamiliar (WD/UF); 1.00 – 1.83, Needs Significant Improvement, unfamiliar (NSI / UF)

The table above shows the post – writing skills of the students and faculty respondents of the study. As revealed from the results of the survey, both students and faculty got the same top three skills in their post – writing research skills. The highest for both student and faculty is the skill on creating PowerPoint report for the study; which is

5.05 for the student and 4.72 for the faculty. Both of the scores has a verbal interpretation of skillful and familiar. The students were thought of doing PowerPoint presentations during their research classes. The Grade 12 respondents were thought for almost three semesters on PowerPoint making while the Grade 11 were thought for almost 2 semesters. The teachers, on the other hand, has this annual training on PowerPoint making and ICT integration in teaching which makes them able in doing PowerPoint for presentations and reports.

The practice of research that started at San Felipe Neri Catholic School includes publication among local, institutional and, or international journals. With the help of the students, through the continuous support of the parents and other sponsors, the skill of making researches for journal publication became the second skill wherein the respondents described as skillful and familiar. Based on the data provided by the Research Office of San Felipe Neri Catholic School , a total of 8 researches was published among the faculty and students last AY 2018 – 2019 wherein four titles was published in ASCENDENS Asia Research Journal. The above data found congruence from the study of Pamatmat (2016) and Pambuena & Bernarte (2018) were in, in different studies, they mentioned the primacy of research publications among private accredited schools. In the case of San Felipe Neri Catholic School, research publications and participation in research colloquia has a certain degree of points for PAASCU Accreditation Level III. However, on the study of D'Amico, Vermigli, & Canetto (2011); Delgadillo, (2016); West, Hore, & Boon (1980), they mentioned that research publications can never be the sole basis for a productive research environment of an educational institution. They added that researches that has been published can only prove its significance if the researcher can successfully utilize, implement and be introduced to the organization and institution. On the other hand, skillful researchers can provide researches to the most silent problem of the institution and from it, he can draw conclusions and some important action plan.

Reflecting on the results of the study, the scores for the research skills of the respondents are consistent, because of the small standard deviation that it has. Research skills are important 21st Century Skills associated with creative thinking and critical thinking. Both students and faculty should be trained with the rigors of research skills since this will allow them to create their own titles, problems, survey, results and plans.

On the Research Attitude of Senior High School Students and Faculty

Research Attitude refers to the manner of the researcher in embracing the role of research in his field of specialization. In a much broader sense, building the idea from the

conceptual discussions of (Belgrave & Jules, 2015; Gallos, 2015; Pamatmat, 2016), research attitude is the combination of skills and determination. While it is true that everyone may be trained for the call of research, the complementing value of attitude with the acquired skills strengthens passion that is highly required in writing researches. Moreover, in the study of Wang & Guo (2011), they discovered that students mostly encounter major obstacles while studying in research method classes. Research method classes should focus not only on the development of research skills. It should also improve the student's emotional readiness towards the rigor of research. In the same discussion, they revealed that "long term effects of not being physically and mentally ready for research has long term effects on their participation in the creation of their own researches." Oguan Jr, Bernal, & Christine Pinca (2014), citing Papanastasiou (2002) defended that the formation of attitude towards research should also be the main concern of administrators among faculty members. Research revealed that there teachers who suffer from research anxiety; caused by the difficulty they are experiencing in doing research.Thus, in the table below, it will explain the level of research attitude among students and faculty of RCAM-ES Cluster 3 Schools.

Table 23

Respondents Research Attitude (Summary)

RESEARCH ATTITUDE	RESEARCH COLLABORATION	RESEARCH CONTRIBUTION	RESEARCH EFFICACY	RESEARCH PUBLICATION	MEAN	SD
Students	**4.65 MPos**	**4.39 MPos**	**4.29 MPos**	**4.58 MPos**	**4.48 MPos**	**0.24**
Grade 11	*4.54*	*4.23*	*4.13*	*4.43*	*4.33*	*0.24*
Grade 12	*4.75*	*4.55*	*4.46*	*4.74*	*4.62*	*0.25*
Senior High School Faculty	**4.60 MPos**	**4.43 MPos**	**4.32 SWP**	**4.48 MPos**	**4.46 MPos**	**0.23**

Research Attitude Legend: 5.16 – 6.00, Strongly Positive (STP); 4.33 – 5.15, Moderately Positive (MPos); 3.50 – 4.32, Somewhat Positive (SWP); 2.67 – 3.49, Somewhat Negative (SWN); 1.84 – 2.66, moderately negative (MNeg); 1.00 – 1.83, Strongly Negative (STN)

The table above shows that the students and faculty has a "moderately positive attitude" towards research. The standard deviation of 0.24 and 0.23, for students and faculty respectively suggests that their scores are consistent and "true". The ranking for the students and faculty are also the same; first is research collaboration, second is the research publication, third is research contribution and fourth is research efficacy.

Research collaboration refers to the attitude of the respondents to accept the idea of creating bonds and ties among new sets of researchers, in order to build a circle of collected effort in the pursuit of knowledge production. This ranks first among the set of attitudes that was tested with the respondents. Research publication ranked second. On the practice of the cluster schools, San Felipe Neri Catholic School ranked first on the number of contributed published researches versus the other two schools. The idea of publishing researches is never new to the school cluster. The aim to contribute on the existing field of knowledge and strengthen what has been known already strengthens the demand for researches to focus on the "novelty" of the researches. Lastly, research efficacy. It is the attitude that includes confidence and certainty on the practice of research among student and faculty researchers.

Table 24

Respondent's Attitude towards Research Collaboration

Research Collaboration	**Students**	**Verbal Interpretation**	**Faculty**	**Verbal Interpretation**
I am comfortable of teaming up with other researchers in our school / cluster.	4.76	Moderately Positive	4.64	Moderately Positive
I am motivated by our school academic environment to do research with co – faculties.	4.63	Moderately Positive	4.82	Moderately Positive
The rewards system of the school intensifies research collaboration among faculty and students.	4.62	Moderately Positive	4.48	Moderately Positive
The academic environment (our school) is conducive for research collaboration.	4.65	Moderately Positive	4.6	Moderately Positive
The idea of collaborating on, my own filed of specialization excites me, as a researcher.	4.57	Moderately Positive	4.44	Moderately Positive
MEAN	**4.65**	**Moderately Positive**	**4.60**	**Moderately Positive**
Standard Deviation	**0.07**		**0.15**	

Research Attitude Legend: 5.16 – 6.00, Strongly Positive (STP); 4.33 – 5.15, Moderately Positive (MPos); 3.50 – 4.32, Somewhat Positive (SWP); 2.67 – 3.49, Somewhat Negative (SWN); 1.84 – 2.66, moderately negative (MNeg); 1.00 – 1.83, Strongly Negative (STN)

The table above shows the attitude of the respondents, students and faculty, regarding research collaboration. As revealed by the data collected, the over – all mean of 4.65 reveals that senior high school students has a moderately positive attitude towards research collaboration. The Senior High School Faculty has 4.44 mean which means

moderately positive. Because of the standard deviation, 0.07 and 0.15 from the students and faculty respectively, the data maybe deduced that the scores are distinct, not scattered and “almost the same”.

Bukvova (2010) citing the works of Hu & Racherla (2008) mentioned that the idea of research collaboration will go back to the “idea of collaboration” across fields of discipline. As a result, a common definition of the term does not exist. Moreover, citing Amabile et al (2001), research collaboration is collaboration with different intellectuals, authorities and enthusiasts that works hard for a particular purpose. Melin and Persson (1996, p. 363) have a similar understanding of collaboration. They further point out the importance of communication as well as “sharing of competences and resources” The study of Bukvova (2010) resulted to different themes such as (1) access to expertise; (2) access to resources; (3) exchange of ideas; (4) pooling of expertise; (5)learning new factors and (6)higher quality results. Payne et al. (2011) shared the same idea, like of Bukvova and Amabile. According to Payne, research collaboration is the evidence of intellectual humility among researchers. Because of collaboration, the quality of knowledge is being refine, improved and empowered. Unlike individual researches, the complexity of collaborative research allows different expertise to flourish and provide a wider avenue for intellectual discussion. On the side of faculty, this group most often forget the value of research collaboration across school district and division. In the case of San Felipe Neri Catholic School, the researches published are mostly departmental and opportunities for research collaboration is very limited. Rewards and incentives are also motivations to conduct research collaboration. According to the local study of Ayala Claudia Odette & Garrcia (2013) and Ulla et al. (2017), incentives are powerful motivators for collaboration. School’s practices in the Philippines includes cash incentives, certificates and public announcement of winners and awardees. These actions contribute to the increase of the morale of the researchers and productivity rate. According to Ulla (2017), “attending and participating to research trainings, receiving research incentives, and having lighter teaching timetable were what the teachers perceived they need to do research.” Moreover, Clemena & Acosta (2016) discussed that research incentives still sustain research interest and research productivity. On top of different motivators, to enhance research collaboration, are research awards which are not limited to monetary gifts; but also include opportunities for intellectual synergy, professional growth and professional recognition.However, the idea of collaboration least impact to the attitude of both students and senior high school faculty. This idea is associated to the experience of

San Felipe Neri Catholic School of low rate in interdepartmental or interschool research activities. Since most of the researches conducted are inside the department, to increase collaboration, faculty must extend their effort of seeing problems in the institution that might have bearing with other department. On that manner, solutions will not be brought by a single person but instead persons with different specialization contributing to the solution of the problem at hand.

Table 25

Respondents Attitude towards Research Contritbution

Research Contribution	Students	Verbal Interpretation	Faculty	Verbal Interpretation
I am capable of producing researches to further advance my field of specialization.	4.40	Moderately Positive	4.22	Somewhat Positive
I am skillful in drawing plans of action, from research data, to remedy problems encountered on my field of specialization.	4.20	Somewhat Positive	4.34	Moderately Positive
I always seek for a very good problem that I am always encountering in my own field of specialization.	4.40	Moderately Positive	4.6	Moderately Positive
I am motivated by the research program of the school to continue our pursuit of knowledge across the discipline.	4.54	Moderately Positive	4.6	Moderately Positive
I always look for alternative solution for an existing problem, through empirical means.	4.42	Moderately Positive	4.4	Moderately Positive
Mean	**4.39**	**Moderately Positive**	**4.43**	**Moderately Positive**
Standard Deviation	**0.12**		**0.17**	

Research Attitude Legend: 5.16 – 6.00, Strongly Positive (STP); 4.33 – 5.15, Moderately Positive (MPos); 3.50 – 4.32, Somewhat Positive (SWP); 2.67 – 3.49, Somewhat Negative (SWN); 1.84 – 2.66, moderately negative (MNeg); 1.00 – 1.83, Strongly Negative (STN)

The table above reveals the attitude of the respondents about research contribution. As shown in the data, the mean of the teachers is higher than that of the students. The teachers has an average of 4.43 or moderately positive, while the students got a 4.39 mean or moderately positive. In terms of standard deviation, the standard

deviation of the students is smaller than that of the teachers. However, we can deduced from the data that both groups has a very small standard deviation, which means scores are close to one another.

The importance of research contribution, as a research attitude, is pertinent to the progress of the academe. According to National Academy of Sciences (2009) students and faculty trained in research is a major component of academia's contribution to industrial performance. While there are visible efforts to progress each specific disciplines, every researchers and research manager alike should promote long – term research. Research has a strong connection with the action of "repeating the search". In the broadest sense, research should revalidate previous data and the "commonly used assumptions" just to satisfy our need for knowledge. Research should perpetuate the action of objective thinking, laying empirical bases for assumptions and advancing the field of education through action researches. (Calma, 2009) reported that graduate research training plays, though plays a vital role in the development of research attitude, it still remains dependent to the quality of education and training given to the student. Accordingly, "it is likely that the extent of its contribution may be less significant when the learning experiences in graduate study have been confined in a limited setting".

In the case Cluster 3 Schools, action researches are geared towards disciplinary advancement and enhancement. Manifested on each departmental strategic plan is the provision on the judicious utilization of research data in order to remedy, or to improve classroom learning experiences, programs and activities or even school based practices on leadership and management. However, on the data presented above it is obvious that students are "somewhat positive" on the implementation of their research data. This may seem true on their cases because most of the time, after their research defense, the students will just turnover their action plans to the different offices and during the implementation stage, the students are no longer around (or some already graduated). Like on the case of a research study of ICT majors were they crafted an offline library program for borrowing and returning books. After coding the necessary programming language, it was turned – over to the librarian; after the school year, it was suggested to be utilized. The student researchers are no longer in the institution since they already graduated. One successful research was done by HE – Cookery students (2017) were in they presented to the academic council the result of their study on the degree of familiarity, among TECH-VOC student on the skills and competencies provided by their curriculum.

After the turn – over of results, the students were invited to participate on the curriculum review.

On the part of the faculty, the data revealed that they are "somewhat positive" on writing their own researches to progress their own specialization." The research department of the institution is only 4 years old. The research manual is still incomplete in terms of policies regarding research practices of the school. As of this writing, the research is just a completing document for every department. Thus, some teachers opt to do research on the conventional manner or just continue researches that was started before. While some researches are gearing towards teaching learning process, some researches are not align to the specialization of the writers. Coordinators must focus their researches on leadership of the department while faculty members must focus on the advancement of their specializations and craft. On that manner, the researchers will feel the sense of importance rather than the feeling of compliance.

Table 26

Respondents Attitude towards Research Efficacy

Research Efficacy	**Students**	**Verbal Interpretation**	**Faculty**	**Verbal Interpretation**
The idea of making a research makes me unease.	3.96	Somewhat Positive	4.54	Moderately Positive
I feel overwhelm when dealing with recently collected research data.	4.27	Somewhat Positive	4.68	Moderately Positive
The amount of effort I exert in doing my research is equivalent to the satisfaction I'm feeling	4.64	Moderately Positive	4.14	Somewhat Positive
My research hours suits my school / academic budget time.	4.12	Somewhat Positive	4.08	Somewhat Positive
I find research as an interesting field of endeavor.	4.48	Moderately Positive	4.14	Somewhat Positive
Mean	**4.29**	**Somewhat Positive**	**4.32**	**Somewhat Positive**
Standard Deviation	**0.27**		**0.27**	

Research Attitude Legend: 5.16 – 6.00, Strongly Positive (STP); 4.33 – 5.15, Moderately Positive (MPos); 3.50 – 4.32, Somewhat Positive (SWP); 2.67 – 3.49, Somewhat Negative (SWN); 1.84 – 2.66, moderately negative (MNeg); 1.00 – 1.83, Strongly Negative (STN)

The table above shows the research efficacy attitude of the respondents. As revealed by the table above, the students believe that their amount of effort exerted in doing research equates with the satisfaction they are feeling; with a mean of 4.64, it means

they are moderately positive about that statement. On the other hand, teachers deemed that being overwhelmed on research data is moderately positive among them. The table concluded on a somewhat positive attitude with a 0.27 standard deviation. Compared to other tables, this table has scores that is a little bit disperse.

Research efficacy is not the ability to be effective in doing research (Jeon, 2018) but it is the act of being confident in the exercise of research skills in a given period of time. Boswell (2013) defended the role of efficacy in the formation of a strong research attitude. Accordingly, research efficacy or research self – efficacy is the state of being confident in the conduct of one's ability to further execute research related skills with ease and accuracy on a given period of time. The said study, backed up with the conceptual underpinnings from Lambie & Vaccaro (2011) and Syzmanski, Ozegovic, Phillips, & Briggs-Phillips (2007), explained that an increase in efficacy is an increase in skill; which will later propel the researcher's attitude in a more productive manner. In the discussion provided, "given research self-efficacy's relationship with increased interest and productivity in research, it is possible that improving undergraduates', faculty members and student researcher's beliefs about their ability to successfully perform these tasks may improve their attitudes and interests toward additional research training as well as research-oriented career paths." The research activity in the senior high school is a course requirement for the Practical Research 1, Practical Research 2 and Inquiry, Investigation and Immersion Subject. The research output of the students, aligned to their specialization, is the culmination of their academic creativity and critical thinking skills. In terms of research efficacy, middle high school students and senior high school students are expected to be cognizant of the dimensions of research efficacy. Mullikin, L., & Betz (2010) identified that the confidence in front of the collected data, the thought of doing research, keeping accurate records and high self – regards on research undertaking is a manifestation of research self – efficacy. Furthermore, universities that address research anxiety has no problem with research efficacy. Citing the study of Bard et al (2000), the study revealed that research efficacy strengthens interest in research. Oguan Jr et al (2014), citing the work of Papanastasiou (2004), explained that a low self – efficacy on research contributes to high research anxiety and even teachers are not an excuse in experiencing such "phenomena" On the table above, faculty respondents show that they are somewhat positive on the idea of finding a research as a field of endeavor. This must be the effect of their "somewhat positive attitude" regarding the action of contributing to the body of knowledge, through research, in order to progress their discipline (table 23 on

research contribution). Research activities of faculty and students are directly influenced by their attitude towards data gathering and data analysis (Maharajan et al., 2017). Furthermore, the study revealed that academic support and academic effort were significant contributors to reduce research anxiety. Academic support lessens research self-anxiety and develops among students higher self – expectations; a greater sense of self – perceived control of academic outcomes for future successes. In the case of Cluster 3 Schools, academic support is very visible among students and faculty. To strengthen research efficacy, the school offers training for both student researchers and faculty members. The faculty is being provided by seminars and training for researches.

Table 27

Respondents Atittude towards Research Publication

Research Publication	Students	Verbal Interpretation	Faculty	Verbal Interpretation
I am eager to produce a research work worthy of publication.	4.47	Moderately Positive	4.12	Somewhat Positive
My skills in research is sufficient for me to produce a research publication for the academic year.	4.22	Somewhat Positive	4.38	Moderately Positive
Published researches may strengthen the attainment of departmental and institutional goals.	4.61	Moderately Positive	4.36	Moderately Positive
Published researches add on the institutional prestige of the school.	4.63	Moderately Positive	4.7	Moderately Positive
I am a responsible researcher and I am always responsible for the outputs that I published.	4.97	Moderately Positive	4.86	Moderately Positive
Mean	**4.58**	**Moderately Positive**	**4.48**	**Moderately Positive**
Standard Deviation	**0.27**		**0.29**	

Research Attitude Legend: 5.16 – 6.00, Strongly Positive (STP); 4.33 – 5.15, Moderately Positive (MPos); 3.50 – 4.32, Somewhat Positive (SWP); 2.67 – 3.49, Somewhat Negative (SWN); 1.84 – 2.66, moderately negative (MNeg); 1.00 – 1.83, Strongly Negative (STN)

The table above reveals the attitude of the respondents towards research publication. As revealed in the data, students and senior highs school teachers show moderately positive response on being responsible research contributors; with a mean of

4.97 and 4.86, respectively. However, the standard deviation suggest that their scores are a little bit disperse compared to other tables.

Research publication is a quest and an endeavor. It is the ultimate goal of every researcher since the 21st century world demands for the production of knowledge and reverification of currently accepted information. One of the fastest means of disseminating research is through the act of publishing it. According to the study of Pambuena & Bernarte (2018) and Creswell (2012) , research publications add prestige to an individual as the person leave his inevitable imprint in his own field of specialization. In the practice of San Felipe Neri Catholic Schools, students and teachers are motivated to publish their researches on the cluster research journals and other research conferences. The school has a provision, under the faculty development plan and student improvement plan, to support “activities that gears for knowledge advancement and institutional prestige. However, on the past years (2018 – 2019), the publication of research decreased and the reason for the said decrease is associated to teacher related duties in the classroom, students are bombarded with different performance task and research plan was not consistently followed by the department itself. Follow – up seems to be missing.

Davies & Felappi (2017), on their article entitled “Publish or Perish?” discussed that research publication should not be a matter of prestige (though it is included in impact of the publication) instead must focus on the act of contributing to knowledge expansion discipline advancement. The experience of students and faculty of San Felipe Neri Catholic School on research publication is somewhat difficult but progressing. The idea of publication in the school follows a strong demand to present the research in the academic council; while students should have a research defense.

On these events the anxiety of the researchers are very obvious. The fear to present their papers hinders them on publishing their works. The experience of San Felipe Neri Catholic School follows the result of the interview of Bughio (2015). In his study, he revealed that one of the hindrances in doing research is the perception of the researcher towards (1) research writing and (2) research publication.

In research writing, the common misconception of the researcher are as follows: (1) the research topic is never new to the discipline; (2) the research methods are demanding, rigorous and most of the time complicated and (3) research is time – consuming and exhaustive to resources. In terms of research publication, most researchers misperceived it with the following (1) I research to publish; (2) I research for prestige and reputation; (3) I research for compliance.

Research publication is an important part of the academe. The activity of publishing researches fuels the desire of every academician, students and faculty members to exhibit their expertise in managing the difficulty in the rigor of data collection, analysis and interpretation. The purpose of research publication doesn't reside fully in the personal growth of our ivory towers, but in the refinement of the discipline the researcher is working with. It also a vehicle for a more possible collaboration among different researchers in the field. Research publication, also, opens different opportunities for a wider audience and opportunities; like funding and fellowships.

On the Test of Significant Difference

Analysis of variance was applied to treat the variables of data, whether a significant difference maybe present or not. Grouping through variables are used to determine if grouping will exhibit a degree of difference in terms of research skills and research attitude.

Table 28
ANOVA Result for Sex

Table of Significant Difference on the Research Skills and Research Attitude vis – a – vis Sex	Test for Equality of Means		Verbal Interpretation
	F. Value	Sig. Value	
Research Skills	**0.392**	**0.532**	**Not Significant**
• Pre – Writing Skills	2.61	0.107	Not Significant
• On – going Writing Skills	0.065	0.799	Not Significant
• Post Writing Skills	2.216	0.137	Not Significant
Research Attitude	**0.274**	**0.601**	**Not Significant**
• Research Collaboration	1.521	0.218	Not Significant
• Research Contribution	0.009	0.923	Not Significant
• Research Efficacy	2.232	0.136	Not Significant
• Research Publication	0.292	0.598	Not Significant

Table 28 shows the test for significant difference between Sex and Research Skills; Sex and Research attitude among Senior High School Students and Senior High School Faculty. From the table above, research skills has a computed alpha of 0.532 which is higher than the 0.05 alpha. It only mean that there is no significant difference between male and female in terms of research skills. In the same discussion, there exist no significant difference between sexes and research attitude. The result of the study found similarity with the results reported by Bandele & Adebule (2013) and Pambuena & Bernarte (2018). On the study of Pambuena & Bernarte (2018), the absence of significant difference on research skills and sex is the similarity on the assessment of male and female on their research skills. Bandele & Adebule (2013) reported that, aside from the

similarity of self – assessment on research skills, the skills needed for research is the same for the sexes. They also added that "research is determined by goals and by passion. There is no singular sex or gender preference that can dominate the field of research. It's their contribution that matters." On the study of Siamian, Mahmoudi, Habibi, Latifi, & ZareGavgani (2016), he discussed that research attitude, when looked upon the sexes, is never different. They defended that if for the past centuries males dominate the field of mathematics and engineering, and women dominate education and medicine; research, on the other hand requires the different discipline "to bend" and "to provide a different view of the already existing knowledge". This, in return, puts both sexes to work hard on their departmental researches. Findings of this study reveal that the male has a mean score of 4.58 for research skills while the female has 4.63. This suggest that their research skills are just the same. In the same discussion with their research attitude, this study found out that male has 4.58 mean score, while the female has 4.63. They got an "almost equal result" with the research skills. From this discussion, we can deduce that their manner of perceiving the importance of research in their own field is "the same".

Table 29

ANOVA Result for School

Table of Significant Difference on the Research Skills and Research Attitude vis – a – vis School	Test for Equality of Means		Verbal Interpretation
	F. Value	Sig. Value	
Research Skills	**5.738**	**.7183**	**Not Significant**
• Pre – Writing Skills	3.199	0.042	Significant
• On – going Writing Skills	4.425	.013	Significant
• Post Writing Skills	2.947	.054	Not Significant
Research Attitude	**7.183**	**0.001**	**Significant**
• Research Collaboration	1.651	.193	Not Significant
• Research Contribution	3.699	.026	Significant
• Research Efficacy	1.829	.162	Not Significant
• Research Publication	4.291	.014	Significant

Table 29 reports the result of the test for significant difference on School variable, Research Skills and Research Attitude. There were no statistically significant differences between school profile and research skills; since the computed alpha value is .7183 and is higher than the significance value of 0.05. However, under research skills, pre – writing skills and on – going writing skills resulted to significant difference since the computed alpha is lower than 0.05. On the other hand, post writing skills yielded to a no significant

result since the computed alpha value of 0.054 is higher than the hypothesized value of 0.05.

Research attitude passed the ANOVA test and revealed a significant difference with the variable School. Since the computed alpha resulted to 0.001, which is lower than the 0.05 significant value, it can be inferred that there is a statistically significant difference between school variable and research attitude. Using post – hoc test, it reveals that research contribution and research publication are the most specific attitude that is significantly different; research contribution has 0.026 alpha and research publication has 0.014 alpha which is lower than 0.05.

The study found out that research skills doesn't have any statistical difference among skills. That is definitely true. Since the research office of RCAM-ES Cluster 3 School is just new, all of the programs was first implemented to San Felipe Neri Catholic School . The beginning of the program implementation can be described as "fitting to the system age". There are some parts of Year 1 were most teachers are doing everything for compliance. Bombarded with academic documents to finish and some other extra and co – curricular activities that involves teacher – adviser participation, teachers find the research programs as something heavy and unrealistic. This is the same scenario when the Sacred Heart of Jesus Catholic School started having the research office 2 years ago, and the Jaime Cardinal Sin Learning Center a year ago. Students and teachers are still coping with the programs of the research office. In the case of the students, on a survey conducted by the research office last 2017, the skills of the students in research is inconsistent to the learning objectives inserted to Math and Science (these are the subjects that requires the students to create their research for the whole year; for the Junior High School Department). These scenario is true to the study of Ulla (2018) and Ulla et al. (2017). On their study, they associated the non – significance of students and faculty research skills (on a cluster based school) with the programs offered by the school in terms of skills improvement for both students and faculty. Accordingly, if the same program works for some and the experience of the other school is the same, institutionalization of the program is successful. Thus, statistics will prove that everything is the same. The test of significant difference, as shown above, will task the research office to identify the source of differences in the application of research skills and the formation of research attitude among the students and faculty of the RCAM-ES Cluster Schools.To intensify the programs of the research office, it is worth reflecting, as well, the emerging

practices of the San Felipe Neri Catholic School and as to how it may benefit other cluster schools that wants to start the practice of research in their own respective institutions.

Table 30

ANOVA Result for Age

Table of Significant Difference on the Research Skills and Research Attitude vis – a – vis Age	Test for Equality of Means		Verbal Interpretation
	F. Value	Sig. Value	
Research Skills	**2.409**	**0.020**	**Significant**
• Pre – Writing Skills	3.384	0.002	Significant
• On – going Writing Skills	1.880	0.071	Not Significant
• Post Writing Skills	1.072	0.381	Not Significant
Research Attitude	**1.922**	**0.065**	**Not Significant**
• Research Collaboration	0.748	0.631	Not Significant
• Research Contribution	0.335	0.938	Not Significant
• Research Efficacy	0.567	0.783	Not Significant
• Research Publication	1.383	0.211	Significant

Table 30 reports the result of the test for significant difference on Age variable, Research Skills and Research Attitude. Since the computed alpha for research skills is lower than 0.05 ($p= 0.020 < 0.05$), it can be inferred that age contributes to significant difference on research skills. Post hoc test revealed that only pre – writing skills contribute to significant difference.

Research attitude failed the ANOVA test and revealed a no significant difference with the variable School. Since the computed alpha resulted to 0.065, which is higher than the 0.05 significant value, it can be inferred that there is the absence of a statistically significant difference between age and research attitude. The results of the study challenges the result of the study of Pambuena & Bernarte (2018). The study of Pambuena & Bernarte (2018) defended that age is not a contributing factor to research skills. They claimed that the selected respondents from Laguna State Polytechnic University has the same view of their research skills, if grouped according to age. In this study, age is statistically significant. When respondents are group according to age, significant difference is present, in particular to their pre – research writing skills. Pre – research writing skills are important competencies for a researcher to start his research writing. When group according to age, those whose age belongs to 19 – 23 has the highest mean score of 5.00. Age follows development. It creates a vicious cycle of developmental change in our cognitive, affective and psychomotor skills (Rezaei & Miandashti, 2013).

Unfortunately, those that belong to lower age groups (15 – 16 and 39 – 43) got low mean scores. Hanover Research Journal (2014) suggested that research training must also consider the age of the participants for it should also address the attitude of the participants. While there is a significant attribution to age and research skills; age and research attitude has no significant difference. Pamatmat (2016) defended that as a researcher grows old on his craft, his ability to see his effort, his productivity also change. On the result provided above, only the research publication has a statistically significant attribution to research attitude. This is typically true since most of the research publication is made by student on aged 19 and teachers aged 26 to 29.

Table 31

ANOVA Result for Profile

Table of Significant Difference on the Research Skills and Research Attitude vis – a – vis Profile	Test for Equality of Means		Verbal Interpretation
	F. Value	Sig. Value	
Research Skills	**6.742**	**0.010**	**Significant**
• Pre – Writing Skills	20.425	.000	Significant
• On – going Writing Skills	7.184	.008	Significant
• Post Writing Skills	.001	.971	Not Significant
Research Attitude	**13.37**	**0.000**	**Significant**
• Research Collaboration	1.100	.295	Not Significant
• Research Contribution	.007	.935	Not Significant
• Research Efficacy	.003	.954	Not Significant
• Research Publication	4.378	.037	Significant

The table above shows the test for significant difference for the Profile of the respondent (student or senior high school faculty), research skills and research attitude. It is reported that there is a significant difference between profile of the respondents and research skills. Since the computed alpha is lower than 0.05 (p=0.010 < p=0.05) it moves the researcher to fail in accepting the null hypothesis; thus, establishing a statistically significant difference between students and faculty, in terms of research skills.

Moreover, research attitude also proves its significant difference with the profile of the respondents. Statistically, the computed alpha of 0.000 for research attitude (which is lower than 0.05 hypothesized alpha) fails the researcher in accepting the null hypothesis; thus establishing a significant difference among students and faculty in terms of research attitude. Using Post Hoc test, it revealed that pre – writing skills, on-going writing skills are statistically significant to students and senior high school faculty in terms of their research

skills. For the research attitude, only research publication was proven statistically significant. One of the findings revealed by this study is the clear statistical difference between research skills and research attitude among students and faculty. Compared to the group of faculty respondents, the senior high school student respondents has a higher research skills and research attitude towards their faculty. Kidd & Seiler (2010) discussed that curricular offerings given to students increase their awareness on the most needed academic skills. While the senior high school students has 3 research subjects and most of their applied subjects requires them to have an accomplished research at the end of the semester. The result is somewhat contrary to the study of Muthuswamy, Vanitha, Suganthan, & Ramesh (2017). On the said study, it was found out that curricular offerings in the classroom doesn't influence research skills development. Instead, they uphold the importance of the "innate skills of the researcher to triumph against research fear and anxiety".

Table 32 ANOVA

Result for Students Grade Level

Table of Significant Difference on the Research Skills and Research Attitude vis – a – vis Grade Level	Test for Equality of Means		Verbal Interpretation
	F. Value	Sig. Value	
Research Skills	**40.11**	**0.000**	**Significant**
• Pre – Writing Skills	18.882	0.000	Significant
• On – going Writing Skills	31.784	0.000	Significant
• Post Writing Skills	23.993	0.000	Significant
Research Attitude	**27.361**	**0.000**	**Significant**
• Research Collaboration	4.365	0.037	Significant
• Research Contribution	15.556	0.000	Significant
• Research Efficacy	12.654	0.000	Significant
• Research Publication	21.961	0,000	Significant

Respondents of this study are from the Senior High School department. The table above shows the result of the test for significant difference using grade level as independent variable vis – a – vis research skills and research attitude. Since the computed alpha value is 0.000 which is lesser than the significance level of 0.05, it can be inferred that there exist a significant difference between grade level's research skills. Similarly, the result of the ANOVA test on research attitude is lower than 0.05 ($p= 0.000 < 0.05$), thus the null hypothesis is rejected and it can be concluded that there is a significant difference between the research attitude among students of the across the grade level. Using post

hoc test, it shows that all of the criterion under research skills and research attitude are statistically significant.

Table 33

ANOVA Result for Educational Background of Faculty

Table of Significant Difference on the Research Skills and Research Attitude vis – a – vis Educational Background	Test for Equality of Means		Verbal Interpretation
	F. Value	Sig. Value	
Research Skills	**1.038**	**0.398**	**Not Significant**
• Pre – Writing Skills	1.079	0.378	Not Significant
• On – going Writing Skills	0.860	0.495	Not Significant
• Post Writing Skills	1.057	0.389	Not Significant
Research Attitude	**1.246**	**0.305**	**Not Significant**
• Research Collaboration	1.194	0.326	Not Significant
• Research Contribution	1.303	0.283	Not Significant
• Research Efficacy	0.347	0.845	Not Significant
• Research Publication	0.223	0.924	Not Significant

Educational background is pertinent to every faculty who holds a specific specialization across the discipline. On the table above, it shows that both research skills (*p = 0.398 > 0.05)* and research attitude (*p = 0.305 > 0.05)* are higher than the significant level 0.05. From the table above, it can be deduced that there exist no statistically significant difference between respondent's educational background and with their research skills and research attitude.

The data above is congruent to findings of Pambuena & Bernarte (2018). On their study about research skills and research attitude of teachers, they reported that there is no statistical significance between educational attainment of teachers with research skills and research attitude. Glancing on the table above, it can be deduce that if the respondents will be grouped according to the level of educational attainment, their research skills and research attitude will be the same.

The experience of cluster 3 schools match the results of the ANOVA in relation to the groupings of the faculty respondents in terms of educational background. On the researches of every department, it is never the solo work of the faculty who has the highest educational attainment. All of the members of the department contribute to the research work. With this experience, it aligns with the result of the ANOVA test that shows a non – significant difference on the groupings of faculty with their educational attainment along with their research skills and research attitude.

Table 34

ANOVA Result for Years of Teaching

Table of Significant Difference on the Research Skills and Research Attitude vis – a – vis Years of Teaching	Test for Equality of Means		Verbal Interpretation
	F. Value	Sig. Value	
Research Skills	**1.294**	**0.298**	**Not Significant**
• Pre – Writing Skills	0.944	0.448	Not Significant
• On – going Writing Skills	1.103	0.367	Not Significant
• Post Writing Skills	0.647	0.632	Not Significant
Research Attitude	**0.881**	**0.483**	**Not Significant**
• Research Collaboration	0.474	0.755	Not Significant
• Research Contribution	0.821	0.518	Not Significant
• Research Efficacy	0.429	0.787	Not Significant
• Research Publication	0.132	0.970	Not Significant

Years of service defines one's dedication and enjoyment to the profession that is being considered by one as job and bread and butter. On the table above, it shows that both research skills ($p = 0.298 > 0.05$) and research attitude ($p = 0.483 > 0.05$) are higher than the significant level 0.05. From the table above, it can be deduced that there exist no statistically significant difference between respondent's years of service in the teaching profession with their research skills and research attitude.

The data above is congruent to findings of Pambuena & Bernarte (2018). On their study, they emphasized the importance of skills in research that should be developed as one progress on their teaching career. However, if the teacher progresses on her career without a focus on producing research or contributing empirical data or results on her profession; then years of service cannot define a teacher's research development. Thus, if research skills is not develop then research attitude will not follow as well.

Years of teaching is an important variable in this study since it reflects the maturity of the teacher in his craft and in his field of specialization. In the context of the Philippine Educational System, every teacher is a researcher. The experience of the teacher molds him along with his crafts and other trades that he may offer in his profession. The non – significant result of the ANOVA for years of teaching, research skills and research attitude only proves that to develop research skills and research attitude, a teacher's years of service cannot justify someone's research skills and attitude. It supports the idea that once in the field of education, it is paramount to have a a grasp of research skill and a profound attitude towards research.

Table 35

ANOVA Result for Number of Researches Accomplished

Table of Significant Difference on the Research Skills and Research Attitude vis – a – vis Number of Researches Accomplished	Test for Equality of Means		Verbal Interpretation
	F. Value	Sig. Value	
Research Skills	**9.503**	**0.000**	**Significant**
• Pre – Writing Skills	5.376	.001	Significant
• On – going Writing Skills	5.787	.001	Significant
• Post Writing Skills	5.078	.002	Significant
Research Attitude	**6.257**	**0.000**	**Significant**
• Research Collaboration	1.124	.339	Not Significant
• Research Contribution	1.082	.356	Not Significant
• Research Efficacy	.552	.647	Not Significant
• Research Publication	5.084	.002	Significant

Table 37 shows the result of the ANOVA test for significant difference on the number of researches accomplished, research skills and research attitude. It is reported that there is a significant difference between the number of researches accomplished and research skills. Since the computed alpha for research skills is 0.000 and is lower than 0.05, it can be inferred the there is a significant difference; thus, rejecting the null hypothesis is necessary. Post hoc test suggest that pre – writing skills, on – going writing skills and post writing skills are the specific contributors to significant difference.

Research attitude, like the research skills, manifested a statistically significant difference with the number of researches accomplished, after the ANOVA test. With a computed alpha of 0.000 and is lower than the significant level of 0.05, the researcher fails to accept the null hypothesis thus establishing a significant result with the variable. Post hoc test suggest that only the attitude towards research publication is significant to research attitude.

The table above reveals that all determinants of research skills are statistically significant if the respondents will be grouped according to the number of researches published. Research productivity is one evidence of a growing research culture (Brew, Boud, & Malfroy, 2017; Ladisla Ria, 2009). Evidences of research productivity includes, but never limited to, research publications. The prestige given by research publication (Ayala Claudia Odette & Garrcia, 2013; Brew, Boud, Namgung, Lucas, & Crawford, 2016) benefits both the researcher and the school he / she is representing. The ANOVA table above reveals the number of accomplished researches encouraged differences on

research skills and research attitude. The table proves that the practice of writing research enhances research skills and its component significantly. Research attitude, on the other hand, is statistically significant to the ability of the research to accomplish number of researches. Post hoc test revealed that only research publication has a statistical significance to research attitude and the number of researches accomplished, since the act of publishing researches accounts to research productivity.

Table 36

ANOVA Result for Practical Research 1

Table of Significant Difference on the Research Skills and Research Attitude vis – a – vis Academic Performance in Practical Research 1 (Grade 12)	Test for Equality of Means		Verbal Interpretation
	F. Value	Sig. Value	
Research Skills	**10.205**	**0.000**	**Significant**
• Pre – Writing Skills	10.024	0.000	Significant
• On – going Writing Skills	8.288	0.000	Significant
• Post Writing Skills	7.831	0.000	Significant
Research Attitude	**9.410**	**0.000**	**Significant**
• Research Collaboration	10.850	0.000	Significant
• Research Contribution	9.197	0.000	Significant
• Research Efficacy	6.895	0.000	Significant
• Research Publication	5.888	0.001	Significant

Practical Research subject 1 or Introduction to Qualitative research is the first formal research subject for Senior High School. The results of the ANOVA test above shows a statistically significant result for research skills and research attitude. There was a statistical significant effect of the academic performance of the students in Practical Research subject 1 on their research skills at the $p<0.05$ level ($p= 0.000$). Similarly, the result of the ANOVA test between PR1 performance of students and research attitude yielded to a statistically significant result at the $p<0.05$ level ($p = 0.000$). The post hoc test also revealed that all of the conditions under research skills and research attitude was met statistically.

The statistical difference brought by the Practical Research 1 subject is due to the academic rigor of the discipline. The academic performance of the students prove that there is a difference in both skills and attitude as a student goes from one grade range into the other. The statistical result of for this variable strengthens the need for differentiation and interest enhancement of the students in research.

Table 37

ANOVA Result for Practical Research 2

Table of Significant Difference on the Research Skills and Research Attitude vis – a – vis Academic Performance in Practical Research 2 (Grade 12)	Test for Equality of Means		Verbal Interpretation
	F. Value	Sig. Value	
Research Skills	**5.875**	**0.000**	**Significant**
• Pre – Writing Skills	5.842	0.000	Significant
• On – going Writing Skills	4.425	0.000	Significant
• Post Writing Skills	4.346	0.000	Significant
Research Attitude	**5.424**	**0.000**	**Significant**
• Research Collaboration	6.890	0.000	Not Significant
• Research Contribution	3.689	0.006	Not Significant
• Research Efficacy	2.528	0.041	Not Significant
• Research Publication	6.082	0.000	Significant

The table shows the result of the ANOVA Test on the Practical Research 2, Introduction to Quantitative Research or (PR 2), Performance of the Grade 12 students vis – a – vis research skills and research attitude. It was observed that research skills is statistically significant to the PR 2 Performance of the students ($p = 0.000 < 0.05$). On the same, research attitude is statistically significant where the computed p (0.000) is lower than 0.05.). The post hoc test also revealed that all of the conditions under research skills and research attitude was met statistically.

The test of significant difference only shows that when the students are grouped according to their level of performance in Practical Research 2, a statistical difference will be viable. This difference is brought by the acquisition of different competencies ((Grima-Farrell, 2017a; Jerald, 2009) manifested in the curriculum guide and exhibited during hands-on activity. On the other hand, there is a statistical difference between performance in Practical Research 2 and research attitude since skills supports attitude. Since the student is skillful in the basic necessary skills of research writing, his attitude towards research writing also improves (Muthuswamy et al., 2017). From the result above, only research publication bear a significant difference on the research attitude. This implies that when grouped according to their academic performance, students who has a high grade in practical research 2 may have a positive of research publication; while those who are having a low performance has a somewhat positive to negative view in research publication.

Table 38

ANOVA Result for Entrepreneurship

Table of Significant Difference on the Research Skills and Research Attitude vis – a – vis Academic Performance in Entrepreneurship (Grade 12)	Test for Equality of Means		Verbal Interpretation
	F. Value	Sig. Value	
Research Skills	**9.626**	**0.000**	**Significant**
• Pre – Writing Skills	5.373	0.001	Significant
• On – going Writing Skills	9.256	0.000	Significant
• Post Writing Skills	8.538	0.000	Significant
Research Attitude	**9.450**	**0.000**	**Significant**
• Research Collaboration	7.808	0.000	Not Significant
• Research Contribution	11.56	0.000	Not Significant
• Research Efficacy	6.210	0.000	Not Significant
• Research Publication	5.402	0.001	Significant

The table shows the result of the ANOVA Test on the Entrepreneurship Performance of the Grade 12 students vis – a – vis research skills and research attitude. It was observed that research skills is statistically significant to the Entrepreneurship Course Performance of the students ($p = 0.000 < 0.05$). On the same, research attitude is statistically significant where the computed *p (0.000)* is lower than 0.05.). The post hoc test also revealed that all of the conditions under research skills and research attitude was met statistically.

Entrepreneurship is a subject that forms every student to be economically competent and entrepreneurial ready. The demands of the 21st century world behooves every learner to be knowledgeable and skillful in doing businesses that can help them in advancing on our social ladder. When the students are grouped according to their research skills, the results are significant. This can be attributed to the competencies needed by the students in doing feasibility studies. Research skills enhances the students aptitude in doing feasibility proposals. Businesses relies, as well, on written reports that shows their progress, either on a daily or a quarterly basis.

Table 39

ANOVA Result for English 11

Table of Significant Difference on the Research Skills and Research Attitude vis – a – vis Academic Performance in English (Grade 11)	Test for Equality of Means		Verbal Interpretation
	F. Value	Sig. Value	
Research Skills	**3.249**	**0.014**	**Significant**
• Pre – Writing Skills	1.460	0.218	Not Significant
• On – going Writing Skills	2.270	0.65	Not Significant
• Post Writing Skills	3.299	0.013	Significant
Research Attitude	**1.367**	**0.249**	**Not Significant**
• Research Collaboration	1.030	0.394	Not Significant
• Research Contribution	3.576	0.009	Significant
• Research Efficacy	2.371	0.056	Not Significant
• Research Publication	2.196	0.073	Not Significant

The table shows the result of the ANOVA Test on the English Subject Performance of the Grade 11 students vis – a – vis research skills and research attitude. It was observed that research skills is statistically significant to the English Subject Performance of the students ($p = 0.014. < 0.05$). Post hoc test revealed that only the post – writing skill category is significant.

On the other hand, research attitude is not statistically significant to the English Subject Performance since the computed alpha of 0.249 is higher than the significant value of 0.05. It can be inferred that the results of the English Subject performance of the students does not have a significant effect to the formation of research attitude.

English subjects, for Grade 11 first semester, focuses on the Oral Communication skills of the students. It emphasize the importance of being articulate and keen to details through speaking. On the table above, it shows that the students, if grouped according to their academic achievement in English, will not yield to any statistical difference in their research attitude. This only means that the English subject does not contribute to any statistical change in the attitude of the students towards research. However, the performance of the students in the English subject shows a statistically significant change on their research skills. It can be deduced that the English subjects has successfully provided opportunities for the growth of research skills among the students.

Table 40

ANOVA Result for Math 11

Table of Significant Difference on the Research Skills and Research Attitude vis – a – vis Academic Performance in Math (Grade 11)	Test for Equality of Means		Verbal Interpretation
	F. Value	Sig. Value	
Research Skills	**3.338**	**0.012**	**Significant**
• Pre – Writing Skills	2.604	0.039	Significant
• On – going Writing Skills	3.310	0.013	Significant
• Post Writing Skills	2.808	0.013	Significant
Research Attitude	**1.990**	**0.100**	**Not Significant**
• Research Collaboration	1.066	0.376	Not Significant
• Research Contribution	1.602	0.178	Not Significant
• Research Efficacy	1.924	0.111	Not Significant
• Research Publication	1.041	0.389	Not Significant

The table shows the result of the ANOVA Test on the Mathematics Performance of the Grade 11 students vis – a – vis research skills and research attitude. It was observed that research skills is statistically significant to the Mathematics Performance of the students ($p = 0.012 < 0.05$). Post hoc comparisons revealed that all the conditions under research skills was met. Thus, it can be inferred that the pre – writing skills, on – going writing skills and post – writing skills are significant to the formation of research skills, as determined by the English Performance.

In the contrary, research attitude is not significant to the English subject performance since the computed alpha ($p = 0.100$) is higher than the significant level of 0.05. Thus, there is no significant difference on the level of performance of the students on their English subject with their research attitude.

The Mathematics subject for Grade 11 has focus on General Mathematics. In includes basic of algebra, business mathematics and some topics on probability and basic statistics. The general mathematics revealed a significant difference on the research skills of the students. It only means that the subject was able to strengthen skills necessary for the parameters under research skills. Also, it can be associated to the bulk of competencies needed for research writing that is align with basic computation skills and descriptive analysis.

Table 41

ANOVA Result for Filipino 11

Table of Significant Difference on the Research Skills and Research Attitude vis – a – vis Academic Performance in Filipino (Grade 11)	Test for Equality of Means		Verbal Interpretation
	F. Value	Sig. Value	
Research Skills	**4.018**	**0.009**	Significant
• Pre – Writing Skills	3.170	0.027	Not Significant
• On – going Writing Skills	2.425	0.069	Not Significant
• Post Writing Skills	1.757	0.159	Significant
Research Attitude	**1.854**	**0.141**	**Not** Significant
• Research Collaboration	2.081	0.106	Not Significant
• Research Contribution	3.112	0.029	Significant
• Research Efficacy	2.175	0.094	Not Significant
• Research Publication	1.039	0.378	Not Significant

The table shows the result of the ANOVA Test on Filipino Subject Performance of the Grade 11 students vis – a – vis research skills and research attitude. It was observed that research skills is statistically significant to the Filipino Performance of the students ($p = 0.009 < 0.05$). Post hoc comparisons revealed that only post writing research skill is significant to the formation of research skills on the subject Filipino.

However, research attitude is not statistically significant to the Filipino Performance of the students. Since the computed alpha of 0.141 is higher than the significant value of 0.05, it can be deduced that there is no significant difference on the performance of the students in Filipino and their attitude towards research.

Test of Significant Relationship

Table 42

Chi Square Test Result for Sex

Table of Significant Relationship on the Research Skills and Research Attitude vis – a – vis Sex	Chi – Square Test of Independence		Verbal Interpretation
	Pearson's Chi Value	Sig. Value	
Research Skills	1.837	0.766	Not Significant
Research Attitude	3.76	0.584	Not Significant

The table above shows the chi – square test result between Sex and Research Skills and Research Attitude of the respondents. Since the computed alpha value, for the

research skills, is higher than the hypothesized alpha of 0.05, it can be deduced that sex is independent with research skills. Likewise, the formation of research attitude among respondents is independent with sex since the computed alpha of 0.766 is higher than 0.05. Both variables failed to reject the null hypothesis. It can be inferred that sex is both independent with research skills and research attitude.

Analysis of Table 40 revealed that the relationship between sex, research skills and research attitude is not statistically significant. Pearson's Chi Square Correlation is very limited and small, thus it can be deduced that sex, as a variable in the study, is independent in the formation of both research skills and research attitude. On the study of Bandele & Adebule (2013), they revealed non – associative property of sex, as a variable, in their study of research skills and research productivity. Their study claimed that the independence of sex, as a variable, is not affected by the necessary skills needed to conduct a research or even the right manner of perceiving research. On the same study, they mention that there is no particular stand between sexes as to the role of research skills and research attitude on them, as an individual.

Table 43

Chi Square Test Result for School

Table of Significant Relationship on the Research Skills and Research Attitude vis – a – vis School	Chi – Square Test of Independence		Verbal Interpretation
	Pearson's Chi Value	Sig. Value	
Research Skills	18.52	0.018	Significant
Research Attitude	39.643	0.000	Significant

The table above shows the chi – square test of independence between school, research skills and research attitude. Both of the dependent variable revealed a strong association with the schools. With a computed alpha of 0.018, lower than the hypothesized alpha of 0.05, the statistic proved that there is a significant association between schools and the formation of the research skills. The same case with research attitude, the statistic was able to reject the null hypothesis since the computed alpha of 0.000 is lower than 0.05. It can be inferred that there is an association between Cluster 3 Schools and the formation of research attitude.

Toffel (2016) discussed that culture of research is dependent to the quality of the workforce that works under the philosophy, mission and vision of the school. He mentioned different agents that might enhance the practice of research such as (1)

research journals; (2) research coaching; (3) professional societies; (4) strong commitment to continuous individual advancement through graduate studies and (5). Research driven-decision making practices. In line with this discussion, the San Felipe Neri Catholic School aligns every research activities coherent to the goals of the school and core values. Research journals are also published locally and across schools inside the cluster. There is a provision for research coaching, for both students and faculty. However, for the faculty it is described as limited. The research programs of the cluster started at San Felipe Neri Catholic School while the rest of the cluster schools are still adjusting on it.

Table 44

Chi Square Test Result for Age

Table of Significant Relationship on the Research Skills and Research Attitude vis – a – vis Age	Chi – Square Test of Independence		Verbal Interpretation
	Pearson's Chi Value	Sig. Value	
Research Skills	39.55	0.072	Not Significant
Research Attitude	42.64	0.175	Not Significant

The table above shows the test for significant relationship between age, research skills and research attitude. As shown in the table, the computed alpha value of 0.072 is higher than the hypothesized 0.05 which means there is no significant association between age and the development of research skills. Same with the formation of research attitude, the statistic accepted the null hypothesis that says reports the independence of age with the research attitude. Since the computed alpha of 0.175 is higher than 0.05, we can say that there has never been a statistically strong association between age and research attitude.

The non – significant association between age, research skills and research attitude found alignment with the result of the study conducted by Brew et al. (2016). After engaging almost 740 respondents on their study in Asia, they found out that age has a limited bearing to research maturity, especially if the respondents are students and faculty. There is no significant relationship because most students perceived research similarly and across Asian countries, their commitment to research is mostly for compliance. In case of San Felipe Neri Catholic School , research is thought among grade levels and their collaborative research work is along with their age groups. Research collaboration

across grade level is very limited. Faculty on the other hand perceived research similarly, same with the students.

Table 45

Chi Square Test Result for Profile

Table of Significant Relationship on the Research Skills and Research Attitude vis – a – vis Profile (Student / Faculty)	Chi – Square Test of Independence		Verbal Interpretation
	Pearson's Chi Value	Sig. Value	
Research Skills	15.70	0.003	Significant
Research Attitude	19.53	0.002	Significant

Profile refers to the two groups of respondents; senior high school students and senior high school faculty. As shown in the table above, there is a significant association with the profile of the respondents in the formation of research skills and research attitude. Research skills has a computed alpha of 0.003 which means there is a strong statistical association between profile of respondents and research skills. As for the research attitude, the researcher rejected the null hypothesis since the statistic of 0.002 is lower than the hypothesize alpha of 0.05. It can be deduced that there is an association between research attitude and profile of the respondents.

The result of the chi – square test shows significant association between respondents profile and their research skills and research attitude. The statistics revealed that the development of research skills is being influenced by their character / profile. Students and faculty in Cluster 3 has their own separate trainings and coaching sessions for research. There is a different program for student. Research program for student mostly focus on research basics and vocabulary building. English proficiency test conducted by the English Department last 2017 and 2018 revealed that Senior High School students find technical writing and coherent writing a challenge. Faculty, on the other hand, revealed their difficulty in statistical reporting, paraphrasing and coherent writing. To remedy the said challenges, the research department together with the concern subject intensified the classroom learning experiences in the attainment of the weak competencies relevant to research writing; this include paraphrasing, citing references, coherent writing, and technical writing. Faculty development plan for teachers, on the other hand, intensified the research collaboration and English proficiency through speaking and writing.

Table 46

Chi Square Test Result for Grade Level

Table of Significant Relationship on the Research Skills and Research Attitude vis – a – vis Grade Level (Grade 11 and Grade 12)	Chi – Square Test of Independence		Verbal Interpretation
	Pearson's Chi Value	Sig. Value	
Research Skills	37.47	0.000	Significant
Research Attitude	26.11	0.000	Significant

As for the students, the table above shows that there is a strong association between grade level and the formation of research skills and research attitude. With a computed alpha of 0.000 and 0.000 for research skills and research attitude, respectively, the researcher failed to accept the null hypothesis. Thus, there is a strong statistical association between grade level and the formation of research skills and research attitude.

The statistical result above justified the rigor of research that they experienced because of their classroom activities. The table above shows that the grade level has a significant association with research skills and research attitude. This only shows that as a student goes high of his academic level, his research skills and research attitude changes as well. This is particularly true to the study of Gallos (2015); Journal & Noor (2017) and Pambuena & Bernarte (2018) were in they reported that the different research learning opportunities offered across grade levels, as one goes high in the academic ladder, the level of difficulty also goes high and the opportunity also strengthen.

Table 47

Chi Square Test Result for Educational Background of Faculty

Table of Significant Relationship on the Research Skills and Research Attitude vis – a – vis Educational Background of SHS Faculty Respondents	Chi – Square Test of Independence		Verbal Interpretation
	Pearson's Chi Value	Sig. Value	
Research Skills	10.814	0.545	Not Significant
Research Attitude	10.105	0.607	Not Significant

The table above shows the chi – square test result between Educational Background vis – a – vis Research Skills and Research Attitude of the respondents. Since the computed alpha value, for the research skills, is higher than the hypothesized alpha of 0.05 (*p= 0.545 > 0.005)*, it can be deduced that educational background is independent with research skills. Likewise, the formation of research attitude among respondents is

independent with Educational Background since the computed alpha of 0.607 is higher than 0.05. Both variables failed to reject the null hypothesis. It can be inferred that educational background is both independent with research skills and research attitude.

While the study of Salom (2017) defended the importance of educational attainment or educational qualifications in the formation of research skills, this study counter the belief that educational qualifications influenced research skills and research attitude. This research views that research skills and research attitude is formed by continuous practice and passion and these elements cannot be learned alone in the graduate school. Research is a real life skill. Outside the tenets of theories and concepts, research is a real life exhibit of critical thinking, creativity, collaboration and communication. In the study of Pambuena et al (2019), they defended that educational qualification is never an issue to researchers as long as your research contribute to your area of discipline. The no significant relationship result can be attributed to the respondent's willingness to do research. All faculty members are required to do research and they exhibit different ways of dealing it, even research skills are most of the time personalized due to the faculty's experiences on doing. In the experience of San Felipe Parochial School, every teachers engage themselves in the rigor of research as they venture on the most possible problem of their discipline. Office coordinators and subject area coordinators are task to create plans of action for their department which are product of their departmental studies. When they are grouped according to their educational qualifications, their research skills and research attitude is independent from it.

Table 48

Chi Square Test Result for Years of Teaching

Table of Significant Relationship on the Research Skills and Research Attitude vis – a – vis Years of Teaching	Chi – Square Test of Independence		Verbal Interpretation
	Pearson'sChi Value	Sig. Value	
Research Skills	12.64	0.396	Not Significant
Research Attitude	14.74	0.256	Not Significant

The table above shows the chi – square test result between Years of Teaching (among faculty respondents) vis – a – vis Research Skills and Research Attitude of the respondents. Since the computed alpha value, for the research skills, is higher than the hypothesized alpha of 0.05 (*p= 0.396 > 0.005)*, it can be deduced that years of teaching is independent with research skills. Likewise, the formation of research attitude among

respondents is independent with years of teaching since the computed alpha of 0.256 is higher than 0.05. Both variables failed to reject the null hypothesis. It can be inferred that years of teaching is independent with both research skills and research attitude.

Table 49

Chi Square Test Result for Number of Research Accomplished

Table of Significant Relationship on the Research Skills and Research Attitude vis – a – vis Number of Research Accomplished	Chi – Square Test of Independence		Verbal Interpretation
	Pearson's Chi Value	Sig. Value	
Research Skills	41.06	0.000	Significant
Research Attitude	43.36	0.000	Significant

The number of research accomplished by the senior high school students and senior high school faculty is the concern of the table above. As the statistics revealed, it shows that both research skills (0.000) and research attitude (0.000) has a strong association with the number of research accomplished by the students and faculty; since the computed value of alpha is lower than the hypothesized alpha of 0.05.

Research productivity through research publications influence individual research skills and research attitude. The statistics above only shows that the development of research skills is influenced by the degree of productivity of the researcher (in this case, the number of his published research). It is worth mentioning the result of the study of Chavez (2014); Evangelista et al.,(2016) and Payne et al. (2011). The three study mentioned that research publications and accomplished researches did not only serve as a symbol of academic prestige, or another feather on the cap among students and faculty, but it serves as a challenge on their capability as a researcher. Research Attitude, according to Butt & Shams (2013) and Kidd & Seiler (2010) is the product of the researcher's commitment in providing meaningful research to progress his own field of specialization. By producing manuscript and output of research, it develops positive confidence in both skills and attitude of the researcher. Producing a manuscript also adds to the academic prestige of the researcher. It enhances attitude towards research by means of getting known across the field of his discipline, sharing and contributing to the expansion of knowledge.

Table 50

Chi Square Test Result for Practical Research 1

Table of Significant Relationship on the Research Skills and Research Attitude vis – a – vis Grade 12 Performance on Practical Research 1	Chi – Square Test of Independence		Verbal Interpretation
	Pearson's Chi Value	Sig. Value	
Research Skills	32.07	0.001	Significant
Research Attitude	38.56	0.000	Significant

For the academic performance of Grade 12 respondents, Practical Research 1 or Qualitative Research is the first research subject that the students will undergo during their Senior High School years. As the data presented above, it strongly shows that there is a significant association between academic performance on Practical Research 1 subject and the acquisition of research skills and the formation of research attitude. The computed alpha of 0.001, for Research Skills; and 0.000 alpha for Research attitude is imperative to the research to reject the null hypothesis thus, extending the assumption that there is a strong statistical association between academic performance in Practical Research 1, research skills and research attitude.

The curriculum for Senior High School regarding Practical Research 1 aims its student to be diligent researchers and embrace the practice of qualitative research by following the rigors of research writing. The chi square test revealed a strong association between academic performance and research skills; academic performance and research attitude.

Table 51

Chi Square Test Result for Practical Research 2

Table of Significant Relationship on the Research Skills and Research Attitude vis – a – vis Grade 12 Performance on Practical Research 2	Chi – Square Test of Independence		Verbal Interpretation
	Pearson's Chi Value	Sig. Value	
Research Skills	30.54	0.015	Significant
Research Attitude	55.74	0.000	Significant

The table above shows the statistical result for association between academic performance of Grade 12 on Practical Research 2 subject or quantitative research and on the formation of research skills and research attitude. The table above reveals that the

statistical test for independence failed in accepting the null hypothesis. Since the research skills yielded to 0.015 which is lower than the hypothesized alpha of 0.05, it can be deduced that there is a statistical association between Practical Research 2 performance of the Grade 12 students and research skills. The same analysis may be extended to the condition of research attitude. With a computed alpha of 0.000, it is imperative to this research to reject the null hypothesis between Practical Research 2 Performance and Research Attitude.

The table above proves that the academic training provided to the students on Practical Research 2 subject is associated with the development of student's research skills and research attitude. Practical Research 2 subject is quantitative research and it strongly follows the systematic rigor of research writing and the application of the appropriate statistical treatment for every specific problem of the research study.

Table 52

Chi Square Test Result for Entrepreneurship

Table of Significant Relationship on the Research Skills and Research Attitude vis – a – vis Grade 12 Performance on Entrepreneurship	Chi – Square Test of Independence		Verbal Interpretation
	Pearson's Chi Value	Sig. Value	
Research Skills	85.00	0.000	Significant
Research Attitude	81.22	0.000	Significant

Entrepreneurship equips the student the necessary skills on writing business letters and feasibility studies. This subject is surprisingly positive with its association to the formation of research skills and research attitude. As shown in the table above, it can be inferred that there is a significant association between Entrepreneurship performance of Grade 12 Students on the acquisition of research skills (computed alpha of 0.00 < 0.05) and the formation of research attitude (computed alpha of 0.00 < 0.05).

The final output for Entrepreneurship subject is the creation of feasibility study for a possible business enterprise among students. On the practice of San Felipe Neri Catholic School, entrepreneurship subject ends with a student business bazaar. The bazaar is to be evaluated using evaluative surveys in terms of the 8P's of Marketing. This practice contribute to challenge of objectivity in decision making and creativity, which are relevant skills in research.

Table 53

Chi Square Test Result for English 11

Table of Significant Relationship on the Research Skills and Research Attitude vis – a – vis Grade 11 Performance on English	Chi – Square Test of Independence		Verbal Interpretation
	Pearson's Chi Value	Sig. Value	
Research Skills	19.59	0.484	Not Significant
Research Attitude	27.93	0.003	Significant

The Grade 11 performance in English Subject is not significant to the formation of research skills. With a computed alpha of 0.484, which is higher than the hypothesized alpha of 0.05, it can be inferred that research skills is independent with the performance of the students in the English Subject. However, the performance in the English subject is statistically associated in the formation of research attitude; since the computed alpha of 0.003 is lower than the alpha of 0.05.

Research skills is not associated with the level of academic performance of the students in English; however, research attitude is influence by their academic performance in English. The English Subject offered among Grade 11 Senior High School students in the school cluster for 1st Semester is Oral Communication. There is a very less provision for some research activities and most of the learning tasks concentrate on conversational skills and track related skills. Research attitude, on the other hand, is significant to the English course because Oral Communication subject includes collaboration and efficacy as themes of learning activities.

Table 54

Chi Square Test Result for Mathematics 11

Table of Significant Relationship on the Research Skills and Research Attitude vis – a – vis Grade 11 Performance on Math	Chi – Square Test of Independence		Verbal Interpretation
	Pearson's Chi Value	Sig. Value	
Research Skills	23.21	0.108	Not Significant
Research Attitude	30.31	0.07	Not Significant

The Grade 11 performance in Math Subject is not significant to the formation of research skills. The table above suggest that the computed alpha of 0.108 is higher than the hypothesized alpha of 0.05. Thus, from the statistic, it can help in drawing the

conclusion that there is no significant association between math performance and research skills. Likewise, the mathematics performance of the students failed to establish a statistical association with research attitude. The alpha level of 0.07 (computed) is higher than 0.05 (hypothesized); thus it can be summed up that there is no significant association between math performance and research attitude. The result can be associated because the lack of research activities for Senior High School Grade 11 on the subject General Mathematics.

Table 55

Chi Square Test Result for Filipino 11

Table of Significant Relationship on the Research Skills and Research Attitude vis – a – vis Grade 11 Performance on Filipino	Chi – Square Test of Independence		Verbal Interpretation
	Pearson's Chi Value	Sig. Value	
Research Skills	25.28	0.014	Significant
Research Attitude	20.36	0.159	Not Significant

The table above shows the performance of the Grade 11 students in Filipino while it is being tested with chi – square, to measure independence and association. The results above revealed that there is a statistically significant association between the academic performance of the students in Filipino and the acquisition of research skills. The computed alpha of 0.014 is lower than the hypothesized alpha of 0.05'; thus it follows the statistical rule of rejecting the null hypothesis, in favor of the tested variables. However, the academic performance in Filipino is not contributing statistically on the formation of research attitude; since the computed alpha of 0.159 is higher than the hypothesized alpha 0.05.The Filipino Subject for Senior High School (Grade 11) has a set of learning competencies for *pananaliksik.* The discussion of the topic for *pananaliksik* is very theoretical. Application is made after each lesson. Research skills was influenced by the academic performance of the students in Filipino however, the research attitude and the idea of collaboration, contribution, efficacy and publication was not emphasized due to its limited time. The topic for *pananaliksik* is done during the final term. Most of the competencies are highly skill based and the application part of the topic was very limited to *interes ng mananaliksik, pagsulat ng pamagat ng pananaliksik* and *paghahanap ng mga kaugnay na pag-aaral.* In the experience of San Felipe Neri Catholic School and Sacred Heart of Jesus Catholic School, students was not able to finish their *proposal ng pananaliksik* because of the time constraints. This actuation are incidents that contributed

to the association of Filipino Subject performance to research skills and its non-association with research attitude.

On the Extent of Influence of Research Skills to Research Attitude

Using Multivariate test, the researcher was able to test "the between – subjects effects" of research skills and research attitude. The table below shows the influence of research skills to the formation of research attitude among the respondents. Since research attitude is compose of research collaboration, research contribution, research efficacy and research publishing; multivariate test will enable the researcher to find patterns of relationships between several variables simultaneously (CAMO, 2011).

Table 56

Multivariate Test on Research Skills and Research Attitude

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.858	610.304[b]	4.000	405.000	.000
	Wilks' Lambda	.142	610.304[b]	4.000	405.000	.000
	Hotelling's Trace	6.028	610.304[b]	4.000	405.000	.000
	Roy's Largest Root	6.028	610.304[b]	4.000	405.000	.000
RESEARCH_SKILLS	Pillai's Trace	.377	10.614	16.000	1632.000	.000
	Wilks' Lambda	.633	12.470	16.000	1237.933	.000
	Hotelling's Trace	.562	14.176	16.000	1614.000	.000
	Roy's Largest Root	.532	54.241[c]	4.000	408.000	.000

a. Design: Intercept + RESEARCH_SKILLS
b. Exact statistic
c. The statistic is an upper bound on F that yields a lower bound on the significance level.

From the table presented above, the Wilks Lambda result of 12.47 with an alpha level of 0.000 reports that there is a significant difference on the level of research skills among respondents. The study of Evangelista et al.(2016;) Evans (2007); Pamatmat (2016); Pambuena & Bernarte (2018) and Toffel (2016) claimed that there is a scarce resource on research skills and research attitude. Most researches explored the importance of research skills and its significance to the leading variables such as age, sex, educational attainment and publications. But the attempt to draw the line between

research skills and research attitude has been the forgotten quest among researchers and their researchers. Since an establish significant difference among the research skills of the respondents was observed, the “test of between subject effects” will detail on what extent do research skills matter to research attitude. Table 56 or the *test between – subject effects* revealed that the level of research skills among the respondents has a statistically significant effect on Research Collaboration (F=25,383; $\mu = 0.20, p = 0.00$); Research Contribution (F=45.383; $\mu = 0.31, p = 0.00$); Research Efficacy (F=23.203; $\mu = 0.19, p = 0.00$); and Research Publication (F=33.967; $\mu = 0.26, p = 0.00$). The computed alpha reveals that research skills influenced the four categories under research attitude. The results from above multivariate test guides the researcher in considering the research skill of the students and senior high school faculty in the development of policies for training and development of the research office.

The result of the multivariate test is somewhat contrary to the study of Pamatmat (2016) about the research attitude of the faculty students of a State University. On the said

Table 57

Test of Between - Subjects Effects

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Power	Sig.
Corrected Model	RCOLLABORATION	79.778[a]	4	19.945	25.383		.000
	RCONTRIBUTION	140.966[b]	4	35.242	45.383		.000
	R_EFFICACY	65.710[c]	4	16.428	23.203		.000
	R_PUBLICATION	117.361[d]	4	29.340	33.967		.000
Intercept	RCOLLABORATION	1453.752	1	1453.752	1850.152		.000
	RCONTRIBUTION	1153.959	1	1153.959	1486.040		.000
	R_EFFICACY	1209.993	1	1209.993	1709.016		.000
	R_PUBLICATION	1133.687	1	1133.687	1312.459		.000
RESEARCH_SKILLS	**RCOLLABORATION**	**79.778**	**4**	**19.945**	**25.383**	**0.20**	**.000**
	RCONTRIBUTION	**140.966**	**4**	**35.242**	**45.383**	**0.31**	**.000**
	R_EFFICACY	**65.710**	**4**	**16.428**	**23.203**	**0.19**	**.000**
	R_PUBLICATION	**117.361**	**4**	**29.340**	**33.967**	**0.26**	**.000**

a. R Squared = .199 (Adjusted R Squared = .191)
b. R Squared = .308 (Adjusted R Squared = .301)
c. R Squared = .185 (Adjusted R Squared = .177)
d. R Squared = .250 (Adjusted R Squared = .242)

study, the research attitude of the faculty is not influenced job related categories that pertains to research such as *instructional competence.* However, research publications and research efficacy are contributory to research skills of the faculty. The multivariate test result of this study further challenge the result of the study conducted by Tang & Chamberlain (2006) where in faculty and administrators are less incline in achieving their goals of the school in terms of research and academics. The study of Tang and Chamberlain resulted to a non - significant association of research skills to the research attitude of the faculty and administration. However, in this study, the association of research skills to the research attitude of the respondents is not assumed by chance, since

the significant alpha value is less than 0.05 level. Thus, the result of the multivariate test above is an affirmation of the title that there is an influence of research skills to the formation of research attitude among senior high school student and faculty of RCAMES Cluster 3 School.

The multivariate result, as shown above, revealed the importance of research skills in the formation of research attitude. Since the study should yield on the creation of a research protocol, the results of the multivariate analysis may assist the researcher in crafting a cluster – based research protocol for the students and faculty of the cluster schools. On the study of Ranjan (2017), on his study about “developing a Research Protocol for Clinicians”, he considered the research skills of the medical doctors in order to provide the necessary programs for research development among the staffs. However, one of the problem he encountered is the attitude of the medical doctors towards research publication “since medical doctors in the public hospitals are more adept with curing the sick than conducting researches”. Barrett, Begg & Kingsley (2018) was able to craft a research protocol by exploring the challenges encountered by university researchers in the stage of data implementation and output evaluation. The protocol they develop is concern with the strengthening of the university culture in data analysis, data interpretation and data utilization through Professional Learning Communities, Action Cells and Research Forum. The institutionalization of the protocol is relevant to the attainment of the ultimate goal of every institution towards a “research driven school”.

Chapter 5

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

This part presents the summary of findings, conclusions and outcome of the study after the rigors of analysing the data gathered**.** This study aims to discover the role of research skills and research attitude on the development of a cluster – based research protocol. The profile of the respondents was collected and was assess through survey for their research skills and research attitude. Statistical analysis was conducted to find out whether there significant difference and, or, significant relationship exist among variables.

Summary of Findings

1. Most of the Senior High School participants of the research is female. Majority belongs to the San Felipe Neri Catholic School and is currently Grade 12. Most of their age is 18. Majority of the participant belongs to the STEM Track. Most of the Grade 12 student participants has a Proficient Grade (85 – 89) in Practical Research 1, Practical Research 2 and Entrepreneurship. Most of the Grade 11 student participants has an advancing proficient grade (80 – 84) in English and Mathematics while Proficient (85 – 89) in Filipino. Majority of the respondents belongs to the range of 1 – 3 in terms of accomplished researches.

2. The profile of the Senior High School faculty can be summarized as follows. Most of the faculty participants are Female. There are 35 Female Participants or 70% of the sample are female. As for the school stations, most of the participants came from San Felipe Neri Catholic School. There are 22 Senior High School faculty and all of them participated on the research. They composed the 44% of the sample for teachers. Using Age Range, majority of the faculty are 29 – 33 years old. Most of the faculty members in the Senior High School Department has earned units on their Master's Degree. Thirty one of the participants belong to this group or 62%. Years of teaching is also a variable in the study. It says that most of the Senior High School faculty Members has 4 – 6 years of teaching experience. There are 22 respondents who belong to this group or 44%. In terms of their accomplished researches, majority of the senior high school faculty members were able to accomplish 1 – 3 researches. There are 30 of them and they compose the 60% of the sample group.

3. The over – all research skills of the students is 4.44. This means that most students are skillful and familiar with the necessary research skills. On the other hand, the over – all research skills of the faculty is 4.18. This means that most faculty are moderately skillful and moderately familiar with the necessary research skills.
4. The overall mean for the research attitude of the students is 4.48 while the senior high school faculty is 4.46. Both mean scores are under the verbal interpretation of moderately positive attitude.
5. There is a significant difference on the level of research skills of the respondent if they are group in terms of age groups, profile, grade level (for senior high school respondents) and the number of research accomplished. For senior high school respondents, there is a significant difference on their research skills if they are group according to their academic performance on Practical Research 1 (Grade 12), Practical Research 2 (Grade 12), Entrepreneurship (Grade 12), English (Grade 11), Math (Grade 11) and Filipino (Grade 11).There is a significant difference on the level of research attitude among respondents if they are group according to school, profile, grade level (for senior high school respondents), number of researches accomplished. For senior high school respondents and their academic performance, if group according to their grades on Practical Research 1 (Grade 12), Practical Research 2 (Grade 12), and Entrepreneurship (Grade 12) a significant different can be deduced.
6. There is a significant relationship that can be statistically define if research skill is matched with school, profile, grade level (for senior high school respondents) and accomplished researches. In terms of the academic performance of the senior high school students, their performance in Practical Research 1 (for Grade 12), Practical Research 2 (for Grade 12), Entrepreneurship (for Grade 12) and Filipino (for Grade 11). Moreover, there is a significant relationship that can be statistically define if research attitude is matched with school, profile, grade level (for senior high school respondents) and accomplished researches. In terms of the academic performance of the senior high school students, their performance in Practical Research 1 (for Grade 12), Practical Research 2 (for Grade 12), Entrepreneurship (for Grade 12) and English (for Grade 11).
7. The research skills influenced the formation of research attitude. There is a strong statistical association between research skills and research attitude. The multivariate test revealed that the formation of a strong research attitude will only

be possible if the research skills of the respondents are refined and maximized fully.

Conclusion

1. From the results of the demographic profile, it can be implied that most of the student participants are graduating students (Grade 12) and has undergone more research opportunities than the rest of the student participants.
2. The demographic profile of the Senior High School Faculty Participants suggests that they are still young professional and new in the cluster school system.
3. It can be implied that students are more skillful and familiar in terms of the research skills than the faculty. It can be related to the research activities attached to the research subjects of the students that harnessed their skills more, than the faculty.
4. It can be inferred that the research attitude of the students and faculty are influences their attachment to research. The moderately positive attitude of both faculty and students suggest that they looked on the parameters of research attitude as influencing to their research endeavors.
5. Profile variables reveals statistical significance on the research skills and research attitude of the respondents.
6. Research skills influenced research attitude. It can be inferred that strengthening the research skills of both students and faculty will result to a positive research attitude.

Recommendation:

Based on the finding and conclusions presented, the following recommendations are suggested:

1. Since the result of the study lead to the discovery of significant influence between research skills and research attitude, the research office of RCAMES Cluster 3 should provide appropriate training and workshop to enhance each level of research skills, among students and faculty.
2. Research Programs of the Cluster 3 School should follow the different categories of Research Attitude to expose both students and faculty to other relevant purpose of research. Also, for the students, strengthening of collaborative research activities should start among Grade 11 students to encourage them on working with other researches across grade level and the school system. Research

collaboration should also be intensified by the teachers and must begin interdepartmental.

3. Also, Cluster 3 Schools should intensify the creation of researches aligned to their areas of specialization to make their contribution to their respective disciplines profound and suit to the needs of their department.
4. Research efficacy can be develop by exposing students and faculty on colloquium, fora and conventions about research.
5. Intensification of Research Publication should be consider. Quota system or Target method can be used to gauge the development of the research office as to publications.
6. Future researchers may work other variables like research culture and factors contributing to Institutional Research success. Also, from the input variables of this study, researchers may create an in – depth study on the variables under research attitude; or other variables such as research productivity and research anxiety.

Chapter 6

Research Protocol for Cluster 3 Schools

San Felipe Neri Parochial School
PAASCU Accredited Level II

Sacred Heart of Jesus Catholic School
PAASCU Accredited Level II

Jaime Cardinal Sin Learning Center
PAASCU Accredited Level I

RESEARCH PROTOCOL
For ROMAN CATHOLIC ARCHBISHOP OF MANILA
EDUCATIONAL SYSTEM
CLUSTER 3 SCHOOLS

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Rationale: Research Skills and Research Attitude are two important elements of the study. The multivariate analysis provided a strong statistical effect to the research attitude of the respondents. Since research is a 21st century skill, students and teachers inside the academe must be well equipped with necessary research skills.

In the case of the Roman Catholic Archdiocese of Manila – Educational System, the clustering of school also requires the clustering of school management and practices. The research department is one of the many offices that requires standardization in terms of procedures and protocols.

This research protocol was crafted from the analysis of research skills and research attitude. Following the guidelines provided by Ahmadi, Reidpat, Allotey, & Ahmad (2014) and Cotton, Ross, & Sullivan (2014), research protocol will unify the practices of the three schools in terms of research writing, following their attitude towards the parameters (1) research collaboration, (2) research contribution, (3) research efficacy and (4) research publication.

Title: **Proposed RCAM-ES Cluster 3 Research Protocol**

Vision: **Becoming a Cluster with a strong research culture with research as an avenue for institutional reputation and faculty- student advancement.**

Mission: **Transcend the Value of Excellence in the academe and community by embracing objectivity and innovation through research.**

General Objectives:

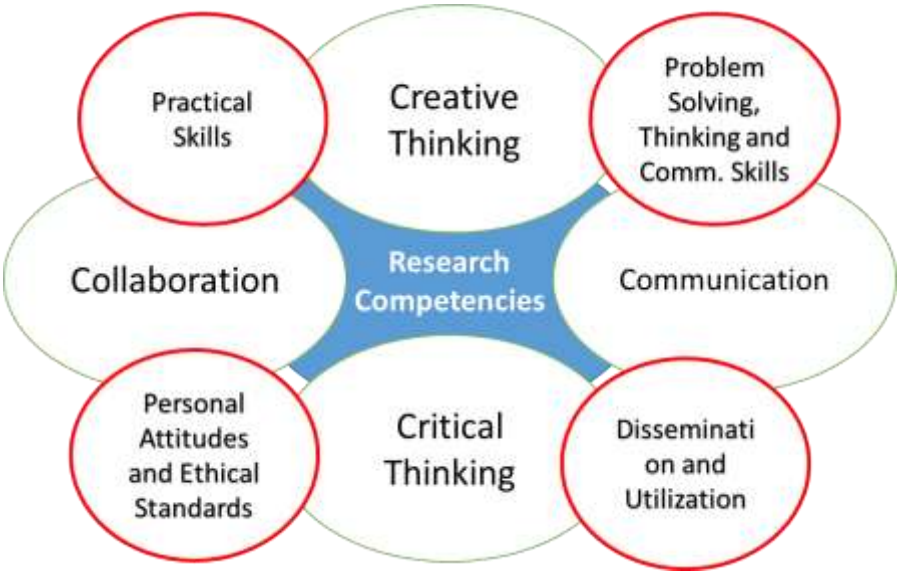
- Provide effective trainings for teachers and students in the field of academic writing and research
- Help the school in attaining its vision of “center of excellence” by creating a “developing culture of research” that gears on making the institution a “culture of excellence and research”
- Enhance collaboration among administrators, faculty and staffs through school based research – forums and colloquiums
- Expose teachers and students on the challenging field of research through participation in local and international research conferences.

Table 58 The Research Roadway of Cluster 3 Schools

Research Agenda	2020 – 2021	2021 – 2022	2022 – 2023
Research Collaboration	At least 4 Local school benchmarking for each academic year with other schools for the sharing of best research practices. There are at least 2 research collaboration project that will be accomplished across the different areas or department.	At least 6 research benchmarking for the whole year with other school for the sharing of best research practices. There are at least 3 research collaboration that will be accomplished across the department and 1 inter-school research collaboration.	The school will sponsor an interschool research collaboration among NCR Schools and sharing of best practices for research. There are at least 4 research collaboration projects that will be accomplished across the department and 2 interschool research collaboration. At least one international research benchmarking for faculty and students.
Research Contribution and Research Publication	At least 5 research titles from students will be published locally. At least 4 from the faculty to be published locally.	At least 7 research titles from students will be published locally; two for international At least 6 researches from the faculty to be published locally; two international.	At least 9 research titles from students will be published locally; four internationally. At least 8 researches from the faculty will be published locally; two international
Research Efficacy	3 student trainors will be develop and will train student researchers in the school 2 faculty trainors will be develop and will train faculty researchers in the school.	5 student trainors will be develop and will train student researchers in the cluster. 4 faculty trainors will be develop an will train faculty researchers in the cluster.	7 student trainors will be develop and will train student researchers during the inter – cluster research training. 6 faculty trainors will be develop and will train faculty researchers during the inter – cluster research training

Intensifying Research Programs

To answer the demands of the 21st Century Research Framework, i.e. 4Cs of 21st Century Learning (Creativity, Critical Thinking, Collaboration and Communication), the school provided avenues for research undertaking among students from the 4th grade to the 12th Grade. With the framework on mind, the Research Department suggested the spiraling of Research Learning among students following the 4Cs of Research and Research Competency Framework (2007).



The above framework shows a developmental pattern were the research competencies may unfold from the 4Cs towards the Research Competency Requirement.

The table below will further explain the development of skills among students:

Table 59

Research Skills Articulation for Elementary

Grade Level	Specific Competency	Conceptual Basis	Output
1,2	Observation by means of the primary senses.	Practical Skills Creative Thinking	Observation Sheets
1,2	Record observations through simple sentences.	Practical Skills Critical Thinking	Observation Sheets
1,2	Communicate observations as perceived by the senses.	Practical Skills Communication	Talking Chips
1,2	Learn to appreciate emotions from simple events (i.e. happiness in a children's party,	Practical Skills Creative Thinking	Coloring Materials

	appreciate kindness etc)		
1,2	Communicate opinion about simple events like Sunday family Day, Favorite Food, Recently watched movie etc	Practical Skills Communication	Talking Chips Recitation
1,2	Express likeness on a given set of possible topics for research.	Practical Skills Critical Thinking	A short response essay
1,2	Use simple reference materials such as dictionary in the discovery of new meaning or vocabulary.	Problem Solving Critical Thinking	Vocabulary Notebook
1,2	Express knowledge on alphabetizing words. (this is essential in the creation of definition of terms in the following grade level)	Critical thinking Thinking Skills	
3	Use the library in the discovery of new facts or information regarding a topic in concern.	Critical Thinking Practical Skills	Journal
3,4	Use a small scale sample size (i.e. his classroom, his friends, his family) in the gathering of possible data.	Collaboration & Critical Thinking Problem Solving	Tabulations
3,4	Alphabetize references.	Critical thinking Thinking Skills	
3,4	Select a topic from a given list.	Critical Thinking Problem Solving, Thinking Skills	Research Journal Entry
3,4,5	Identifying key concepts related to the topic through brainstorming.	Collaboration Problem Solving Personal Attitudes	Research Journal Entry
3,4,5	Create statement of interest regarding the selected topic.	Critical thinking Practical Skills	Research Journal Entry
3,4,5	Define the research parameters through specific objectives.	Critical thinking Practical Skills	Research Journal Entry

3,4	Conduct data gathering procedure through close – ended (yes / no) questionnaires.	Critical Thinking Problem Solving,	Research Journal Entry
5,6	Recognize Primary and Secondary Resources.	Critical Thinking Ethical Standards	Research Journal Entry
5,6	Apply proper citation in the utilization of data from the primary and secondary resources.	Critical Thinking Ethical Standards	Research Journal Entry
4,5,6	Present data in tabular forms (i.e. pie charts, tables, graph)	Critical thinking Creative Thinking Practical Skills	Research Journal Entry
3,4	Compose simple summary and conclusion.	Critical thinking Practical Skills	Research Journal Entry
5	Compose summary and conclusion vis – a – vis statement of the problem.	Critical thinking Practical Skills	Research Journal Entry
6	Compose summary, conclusion vis – a vis statement of the problem leading to the production of simple recommendations.	Critical thinking Practical Skills	Research Journal Entry
4,5,6	Create information boards for the research presentation.	Collaboration Creative Thinking	Research Journal Entry
3,4	Be able to present their work in a classroom-based symposium lead by their Science Teachers and facilitated with their parents.	Collaboration Critical Thinking Problem Solving Thinking Skills Communication	Research Presentation
5,6	A mini research congress may be deemed necessary, as long as the participants will have proper orientation on	Collaboration Critical Thinking Problem Solving Thinking Skills Communication	Research Presentation

	the right way of presenting the data		

Junior High School

Table 60

Research Skills Articulation for Junior High School

Grade Level	Specific Competency	Conceptual Basis	Output
7,8	Distinguish a case inside of an interest and an interest inside of a case.	Practical Skills Critical Thinking	Mind mapping
7,8,9,10	Recognize case as the starting point in the creation of a research problem.	Practical Skills Critical Thinking	Concept Chart
7,8,9,10	Explore the case using graphic organizers.	Practical Skills Critical Thinking	Mind mapping
7,8,9,10	Narrow down the topics of the case through specific objectives.	Critical Thinking Problem Solving, Thinking Skills	Funneling Chart
7,8,9,10	Craft the statement of the problem from the objective and the case of the study.	Critical Thinking Problem Solving, Thinking Skills	Funneling Chart
7,8	Understand variables and its importance in the development of the study.	Practical Skills Critical Thinking	Lecture notes Statement of the problem
7,8	Understand the role of hypothesis in the beginning and in the finalization of the study.	Practical Skills Critical Thinking	Lecture notes Hypothesis
7,8,9,10	Determine the most specific scope of your study as derived from: a. Respondents b. Area of concern c. Method	Critical Thinking Problem Solving, Thinking Skills	Lecture Notes Scope and Limitation
7,8	With teacher's guidance or supervision, the researcher will be able to present a proposal paper that presents	Collaboration Critical Thinking Problem Solving Thinking Skills Communication	Proposal Paper

	ideas in a logical and organized manner.		
7,8	Students understand paraphrasing as essential in the collection of resources, either from primary or secondary.	Critical Thinking Thinking Skills	Exercises on paraphrasing Utilizing library resources and judicious use of online sources for the review of related literature.
7,8	Equip students with necessary skills in proper citation of works in the MLA / APA format.	Practical Skills	Bibliography
7,8	Immerse in library work and find resources cited either in MLA or APA	Practical Skills	Review of Related Literature and Studies List of References
7,8,9,10	Create a table of related literature and studies matching the inquiries crafted from the statement of the problem.	Collaboration Critical Thinking Thinking Skills Communication	RRL matrix
7,8	Synthesize resources matching its relevance to the study.	Critical Thinking Thinking Skills	Synthesis of RRL
7,8	Equip research skills with the fundamentals of research methods.	Problem Solving Thinking Skills Communication	Table of methodology
7,8	In collaboration with the research teacher or the adviser, the researcher may apply the necessary research method for the study.	Collaboration Critical Thinking Problem Solving Thinking Skills	Table of methodology
9,10	Decide for the most appropriate research method.	Critical Thinking Thinking Skills	Table of methodology
7,8	Follow a protocol design for research method.	Problem Solving Thinking Skills	Table of methodology

9,10	Design data gathering tools appropriate for the study.	Problem Solving Thinking Skills	Questionnaire
7,8	Recognize the importance of interview in the conduct of the study.	Problem Solving Thinking Skills	Lecture notes Draft – interview guide
7,8,9,10	Apply necessary statistical skills in the treatment of data.	Problem Solving Thinking Skills	Statistical Exercises
9,10	Perform test of significance among variables of the study.	Critical Thinking Problem Solving Thinking Skills	Analysis of Data
9,10	Apply appropriate data treatment for interview data.	Critical Thinking Problem Solving Thinking Skills	Analysis of Data
7,8	Strive professional quality in the output of the study	Collaboration Critical Thinking Problem Solving Thinking Skills	Research manuscript
9,10	Exhibit depth and profundity in the output of the study.	Collaboration Critical Thinking Problem Solving Thinking Skills	Research presentation
7,8	Develop a deep understanding of the study.	Collaboration Critical Thinking Problem Solving Thinking Skills	Research presentation
9,10	Develop advanced understanding on the utilization of the data gathered from the study.	Collaboration Critical Thinking Problem Solving Thinking Skills	Research presentation
7,8,9,10	Discuss and debate conclusions.	Collaboration Critical Thinking Problem Solving Thinking Skills	Research presentation
7,8,9,10	Develop written reports, procedures and explanations that draw on the research base.	Collaboration Critical Thinking Problem Solving Thinking Skills	Research manuscript
7,8,9,10	Include graphic, pictorial, oral presentations of the product.	Collaboration Critical Thinking Problem Solving Thinking Skills	Research manuscript

7,8,9	Develop action plan related to the results of the study.	Collaboration Critical Thinking Problem Solving Thinking Skills	Recommended actions
9, 10	Develop and measure the extent of the action plan for future studies.	Collaboration Critical Thinking Problem Solving Thinking Skills	Evaluation of Actions

For Senior High School

Follow the research competencies as prescribed the CMG for Practical Research 1 & 2

Utilization of Research Data for Faculty

It was noticed on the recommendation of the PAASCU that the utilization of data gathered from the faculty's research data must be evident. Hence the following action is being noted: A well-defined action plan must be included after the recommendation of the study. The action plan must possess the following important elements:

Table 61

Data Utilization Matrix Sample for Faculty Researcher

Specific Findings	Necessary Actions	Time Table	Evidences of Implementation	New Findings
The social awareness level of Grade 8 students are low in the social insight stage.	Using the reflexive approach in dealing with social issues, the students will create journals using graphic organizers that includes personal reflection on the topic at hand. Student led forum will be	2nd Grading	Reflection Journals Talking Chips Video recorded talks Rubrics	(will be answered after the research met the time table)

	allotted during classroom discussions.			
The social awareness of Grade 10 students manifested "evident" as revealed by the Social Awareness Inventory.	Continue the intervention	2nd Grading	Reflection Journals Talking Chips Video recorded talks Rubrics	(will be answered after the research met the time table)

The Professional Learning Community of the faculty must allot discussion of research progress. This will give faculty and research member's time for reflecting among practices and means of utilizing research data.

PROPOSED RESEARCH PROTOCOL
ROMAN CATHOLIC ARCHBISHOP OF MANILA
EDUCATIONAL SYSTEM
CLUSTER 3

KEY RESULTS AREA	OBJECTIVES	ACTION STEPS and ACTIVITIES	PERSONS INVOLVED	MONITORING SYSTEM	SUCCESS INDICATORS	TIME TABLE		
						'20–'21	'21–'22	'22–'23
RESEARCH SKILLS	Enhance the school based research skills of students and faculty	• Identify the research skills of the students and faculty that needs refinement.	Research Coordinator	Survey Results	The research office will be able to trace the weak points of the student and faculty researchers in research and at the end of the program 100% of the faculty and student will have an improve research skills.			
	Provide opportunities for skills development of student to enhance research skills appropriate to the	• Create research training program for students appropriate to their grade level. **Grade 11 Students** • Grade 11 students will undergo training on writing skills	Research Coordinator Class Advisers Grade 11 and Grade 12 students	Attendance Sheet Minutes of the Program Sample Proposals	100% of the students and the faculty concern have successfully attended the research training.			

	research goals of their grade level.	for Qualitative Research. • Track related training for research will be proposed such as: STEM – simple experimental study HUMSS – narrative writing and interview Tourism – Introduction to Social Research ICT – simple ICT Driven research project for community purposes ABM – Business proposal writing **Grade 12 Students** • Prepare students for their **Research Colloquium** before the end of their academic year. • Conduct of Student led symposia		Research Colloquium Results Research of the Year Awardee Manuscripts	All Grade 11 students will have a feasible research proposal and a research journal entry at the end of the academic year. All Grade 12 Students will be successful in defending their research project prior to graduation.			

		that will focus on research developme nt across Tracks and Strands.						
	Maximi ze teacher potentia l for researc h writing through coachin g.	**Seminars and Training workshops for Teacher Development in Research.** • Monthly Professiona l Learning Community that will discuss data and the possibility of creating a research problem out from it. • Inviting external resource person as coaches for department al researches.	Research Coordinat or Faculty Members Probation ary 1,2,3 and Regular Tenured.	Minutes of the Professiona l Learning Community	100 % of the faculty will be able to attend seminars, trainings and workshop that gears on the improveme nt of research skills.			
RESEA RCH ATTITU DE	Enhanc e student and teacher attitude towards researc h by applyin g the acquire d researc h skills				100% of the students and faculty researcher s of the school cluster will have a stronger grasp of research and the role it plays on each			

	towards the attainment of institutional research protocol.	**Cluster Meeting of Researchers for Student and Teachers** This meeting of cluster researchers among students and faculty will aim to intensify collaboration among researchers across the school cluster.	Cluster School Principals and Vice Principals Subject Area Coordinators Research Coordinator Faculty and Student Researchers	Programme and Schedule of Activities Accomplished Collaboration Agreement Form	area of specialization 100% of the students and faculty researchers will be able to participate on an interschool activity about research and sharing of best practices.			
RESEARCH COLLABORATION	Provide opportunities for research collaboration among students and teachers inside the cluster school system.	The meeting will also include research collaboration agreement that will be signed by the participants. The research collaboration agreement sheet will be used to introduce the interest and the research field that the researcher specialized with. **Professional Learning Community** for Faculty Researchers The goal of professional learning community is to	Subject Area Coordinator Faculty Members	Data Analysis and Compendium of Results	100% of the participants is successful in making connections with other researchers across the cluster school system. 100% of the participants will be able to share their expertise			

		embrace the culture of data and empirical investigation to address the problems encountered by the school in terms of learning progress, behavior, leadership and administration. At the end of the academic year, the problems discovered should be matched with an appropriate research plan that will be conducted and evaluated on the next academic year. **Benchmarking** for Research Development Like what happened last 2010 (Hongkong Benchmarking) and 2015 (Bangkok Benchmarking), a proposal for local and international benchmarking will be proposed to send faculty researchers for an intense	School Director School Finance Assistant Director School Principal Sponsors Faculty Researchers Student Researchers Parents	Successful candidates who passed the screening for benchmarking. Documentation	on the interpretation of data concerning strengths and weakness of the programs offered by the school, At least 100% of the student faculty researchers will be able to participate on the local benchmarking. At least 80% among students and faculty researchers will be able to participate on an international benchmarking.			

		encounter of research practices among schools in the country and abroad.						
RESEARCH CONTRIBUTION RESEARCH PUBLICATION	Intensify the practice of research by contributing to the body of knowledge that creates one's specializations. Encourage research productivity among students and faculty by providing opportunities for research publications and research presentations locally and abroad.	**Inter-school Research Coaching : The Research Hour** This program will provide opportunity for one individual to present his study for an hour. Audiences will include stakeholders and other guests from cluster school. The topic of the said research hour will revolve on the results of the study, the experiences of the researcher and the challenges overcome in conducting the research. **Research Clinic** To have a continuous check on the skills of the researchers, a research will clinic will involve experts	Research Coordinator Invited Research Experts (External) Students Faculty Members Research Coordinator Invited Research Experts (External) Students Faculty Members Research Coordinator	Minutes of the Research Hour Documentation Consultation form Revised Manuscript Faculty and Student	At least 70% of the student and faculty researchers will be given the opportunity to conduct research hour and share their experiences in the conduct of research. 100% of the students and faculty researchers will be able to participate and assess on the research clinic sessions conducted by the research department.			

		from the field that will assess the manuscript of the researcher. Constructive criticisms will be given in order to improve the manuscript of the researcher. **Research Publications** Create a body of educators that will screen researches of candidate researchers for research publications. Intensify rewards system for faculty researchers who was able to publish research locally or abroad, in a refereed journal.	Invited Research Experts (External) Students Faculty Members	Researches Published in local and international journals	At least 7 titles for the students to be published at the end of the school year. At least 7 titles for the faculty to be published at the end of the school year.			
Research Efficacy	Enhance confidence and self – motivation in the conduct of research by focusing on skills improvement.	**The Trainee now a Trainor Program** Just like what the school have started last 2016, it will be continued but by this time with the involvement of students. Teachers who was trained and have shown increase on the	Academic Coordinators and Subject Area Coordinators Research Coordinator Students Faculty Members	Minutes of the Program Activity Sheets Accomplished Research Proposal Form	100% of the student and faculty trainees will become trainors and will be given the opportunity to spearhead his own research hour.			

		research skills and was able to publish research will conduct a research training where he is the speaker and trainor. Probationary teacher and Grade 11 students will attend on the said crash course. Selected Grade 12 students will serve as facilitators and moderator of the said activity were they will assist teachers and students in the construction of a research proposal.						

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LETTER TO THE PRINCIPAL

August 21, 2019

Dr. Henry A. Davalos
School Principal
San Felipe Neri Catholic School
Sacred Heart of Jesus Catholic School
Jaime Cardinal Sin Learning Center

Subject: Permission to conduct dry – run and pilot survey among Senior High School Students and Faculty of San Felipe Neri Parochial School

Dr. Davalos:

Greetings of Peace.

The undersigned is currently enrolled in the Master of Arts in Education Program of the Dr. Lanting's College. As part of the program, the student should write a thesis prior to graduation. In this regards, I am asking for your permission to allow the researcher to conduct a survey on the influence of research skills to the research attitude of Senior High School Students and Faculty of Cluster 3 Schools.

The data collection is scheduled as follows:

- Dry Run – August 28
- Formal Survey – Sept 5

We will be needing 363 Senior High school students and all of the senior high school faculty, as respondents. Rest assure that all data will be treated "sacred" and confidential. The results of the study will be shared to your office for your perusal and possible consideration in the creation of a research protocol.

Hoping for your kind consideration.

Respectfully Yours,

Zarren Aleta Gaddi (SGD)
Research Coordinator, Cluster 3
Researcher

Noted by:

Dr. Cherry Amor Dizon (SGD)
Thesis Adviser

Approved by:

Dr. Henry A. Davalos (SGD)
School Principal

Innovations for Professional Advancement Inc.
Arm of LORIMAR Publishing House for Professional Development among Teachers, Administrators and Educators
18 Boston Street corner Aurora Boulevard
Barangay Kaunlaran, Cubao, Quezon City
Tel: 477 - 4833

STATISTICIAN'S REPORT and CERTIFICATION

This is to certify that the research study entitled ***"A Study on the Influence of Research Skills to the Research Attitude of Senior High School Students and Faculty of RCAM-ES Cluster 3 Schools: Basis for a Cluster Based Research Protocol"*** prepared and submitted by **Zarren Aleta Gaddi, LPT** has been statistically reviewed by the undersign.

The researcher made questionnaire, for Research Skills, used in this study has been validated through *Cronbach Alpha Test of Reliability* with a ***Cronbach Alpha Score of 0.941 for the Research Skills Questionnaire***. The statistical result revealed that there is a high level of internal consistency on the Likert Scale Survey constructed.

The researcher made questionnaire, for Research Attitude, used in this study has also been validated through *Cronbach Alpha Test of Reliability* with a ***Cronbach Alpha Score of 0.937 for the Research Skills Questionnaire***. The statistical result revealed that there is a high level of internal consistency on the Likert Scale Survey constructed.

Due to the high statistical result of the validated questionnaire, the survey instrument was recommended for **Formal Data Collection.**

ANOVA and Chi – Square Test was used to treat the data for statistical significance.

Jonathan Clave Prado, CSSYB (SGD)
Statistician

Research Survey for Students

Tick the box that corresponds for your response.

Sex

- ○ Male
- ○ Female

Age _____ (Please indicate)

School:

- ○ San Felipe Neri Parochial School
- ○ Sacred Heart of Jesus Catholic School
- ○ Jaime Cardinal Sin Learning Center

Academic Grades:

Practical Research 1	**Practical Research 2**	**Entrepreneurship**
( ) 100 – 97	( ) 100 – 97	( ) 100 – 97
( ) 96 – 93	( ) 96 – 93	( ) 96 – 93
( ) 92 – 89	( ) 92 – 89	( ) 92 – 89
( ) 88 – 85	( ) 88 – 85	( ) 88 – 85
( ) 84 – 81	( ) 84 – 81	( ) 84 – 81
( ) 80 – 77	( ) 80 – 77	( ) 80 – 77
( ) 76 – 75	( ) 76 – 75	( ) 76 – 75
( ) 74 – below	( ) 74 – below	( ) 74 – below

Number of Research Activities accomplished:

( ) None ( ) 1 – 3 ( ) 4 – 6 ( ) 7 – 9 ( ) 10 – above

Part II. Research Skills

Please rate your self – assessment on the following research skills. Please tick on the box that correspond to your answer. Refer on the legend, provided below.

6 – Very Skillful, very familiar
5 – Skillful, familiar
4 – Moderately Skillful, moderately familiar
3 – Moderately not skillful, slightly familiar
2 – Could learn but with difficulty, unfamiliar
1 – Needs Significant Improvement, unfamiliar

1. Research Skills (Pre – writing pre-requisites)	6	5	4	3	2	1
1.20. Brainstorming with friends / colleagues						
1.21. Writing a research case						
1.22. Identifying the research objective of the study.						
1.23. Defining specific research variables						
1.24. Crafting the Research Title						
2. Research Skills (On – Writing Skills)	6	5	4	3	2	1
2.20. Writing the introduction of the study						
2.21. Identifying the appropriate theoretical construct						
2.22. Creating the Input – Process – Output Framework of the Study						
2.23. Establishing alignment with the variables and the specific questions.						
2.24. Understanding the scope and delimitation of the study.						
2.25. Defining operationally relevant terms mentioned in the study.						
2.26. Writing a coherent review of related literature and studies.						
2.27. Choosing the most appropriate resources for literature and studies review.						
2.28. Designing the research methods						
2.29. Constructing the research instrument						
2.30. Validating the research instrument.						
2.31. Tabulating the results.						
2.32. Applying appropriate statistical treatment.						
2.33. Discussing the collected data.						
2.34. Writing with coherence the interpretation and analysis of data.						
2.35. Creating the recommendation of the study.						
3. Post Research Skills (After Writing Skills)	6	5	4	3	2	1
3.20. Creating a powerpoint report for the study						
3.21. Presenting your report with a panel						
3.22. Articulating effectively the result of your data						
3.23. Integrating the intervention plan to the locale of the study.						
3.24. Submitting the manuscript for journal publication						

Part III. Attitude towards Research

Please rate your self – assessment on the following research skills. Please tick on the box that correspond to your answer. Refer on the legend, provided below.

6 – Strongly Positive
4 – Somewhat Positive
3 – Somewhat Negative
2 – Moderately Negative
1 – Strongly Negative

	6	5	4	3	2	1
I am comfortable of teaming up with other researchers in our school / cluster.						
I am motivated by our school academic environment to do research with co – faculties.						
The rewards system of the school intensifies research collaboration among faculty and students.						
The academic environment (our school) is conducive for research collaboration.						
The idea of collaborating on ,my own filed of specialization excites me, as a researcher.						
I am capable of producing researches to further advance my field of specialization.						
I am skillful in drawing plans of action, from research data, to remedy problems encountered on my field of specialization.						
I always seek for a very good problem that I am always encountering in my own field of specialization.						
I am motivated by the research program of the school to continue our pursuit of knowledge across the discipline.						
I always look for alternative solution for an existing problem, through empirical means.						
The idea of making a research makes me unease.						
I feel overwhelm when dealing with recently collected research data.						
The amount of effort I exert in doing my research is equivalent to the satisfaction I'm feeling						
My research hours suits my school / academic budget time.						
I find research as an interesting field of endeavor.						
I am eager to produce a research work worthy of publication.						
My skills in research is sufficient for me to produce a research publication for the academic year.						
Published researches may strengthen the attainment of departmental and institutional goals.						
Published researches add on the institutional prestige of the school.						
I am a responsible researcher and I am always responsible for the outputs that I published.						

Research Survey for Faculty

Research Skills

Tick the box that corresponds for your response.

Respondent

- ○ I am a Senior High School Faculty

Sex

- ○ Male
- ○ Female

Age _____ (Please indicate)

School:

- ○ San Felipe Neri Parochial School
- ○ Sacred Heart of Jesus Catholic School
- ○ Jaime Cardinal Sin Learning Center

Educational Background (Please tick on the *highest attained*):

( ) Bachelor's Degree

( ) Masters Degree (with earned units)

( ) Masters Degree (with Passed Comprehensive Examination)

( ) Masters Degree (Thesis Writing; on – going)

( ) Masters Degree (graduated)

( ) Doctorate Degree (with earned units)

( ) Doctorate Degree (with Passed Comprehensive Examination)

( ) Doctorate Degree (Dissertation Writing; on – going)

( ) Doctorate Degree (graduated)

Number of years in teaching

( ) 1 – 3 ( ) 4 – 6 ( ) 7 – 9 ( ) 10 – 12 ( ) 13 – 15 ( ) 16 – above

Number of Research Activities accomplished:

( ) None ( ) 1 – 3 ( ) 4 – 6 ( ) 7 – 9 ( ) 10 – above

Part II. Research Skills

Please rate your self – assessment on the following research skills. Please tick on the box that correspond to your answer. Refer on the legend, provided below.

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Published researches may strengthen the attainment of departmental and institutional goals.						
Published researches add on the institutional prestige of the school.						
I am a responsible researcher and I am always responsible for the outputs that I published.						

PERSONAL DATA

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TERTIARY LEVEL:	Rizal Technological University Mandaluyong City Bachelor of Secondary Education Major in Social Sciences, *cum laude*
SECONDARY LEVEL:	Mandaluyong High School
ELEMENTARY LEVEL:	Tomas Earnshaw Elementary School
OGRANIZATION:	Senior Member, Royal Institute of Educators Royal Institution Singapore Member, Organization of Social Studies Teachers of the Philippines
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ACHIEVEMENTS:

Book Author

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Golden Cronica Publishing Inc. 2017
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Golden Cronica Publishing Inc. 2018
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Action Research Primer
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