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RESEARCH EXPOSURE, ATTITUDE AND COMPETENCE OF THE SENIOR HIGH SCHOOL TEACHERS

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Abstract: This study determined the research exposure, attitude towards research and research competence of the Senior High School teachers using the descriptive-correlational method of research. The study was conducted on the select Public Secondary Schools that offer senior high program in the whole District 1 of Cagayan. A total of 60 senior high school practical research teachers of the Department of Education were utilized as respondents. Findings revealed that most of the teachers handling practical research in the first district of Cagayan are predominantly young, female, mostly English in specialization, with average 6 years in the teaching service, currently on-going Masteral schooling (MA/MST.). majority has undergone Educational Research subject, and with local Research-related trainings. More so, Practical Research teachers in the Cagayan District 1 were found to have low exposure due to low number of research development, presentation and publication. Teachers have somewhat positive attitude towards research despite that they know the usefulness of research in their profession. Thus, the more useful the teachers think of research, the higher their level of positivity towards research. However, the higher their research difficulties, the higher is their level of research anxiety. Furthermore, the more experienced the teachers, the higher their level of competence. The more the teachers' exposure in research, the higher their level of competence. The study provides input for recommendation towards the improvement of teachers' research exposure, attitude and competence as practical research teachers.

Keywords: *research exposure, research attitude, research competence, senior high school teachers, practical research*

I. INTRODUCTION

The emergence and fast-pacing improvements of life has always been credited to research. Along with these progress, research has proven its worth, being one of the contributory factors of these fundamental changes, as evident in the outstanding ground-breaking discoveries and developments not just in the field of education but in society as a whole. Research provides necessary information in the field of work and in anything under the sun. It also helps people get acquainted with the process and in the successful outcome of a project. The systematic approaches, establishments of facts, carefully organized and controlled research enables researchers to test and compare different theories, different methods and learn from other people's experience. It also enables them to rule out or at least consider external factors which might influence their results.

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The Republic Act No. 10533, or the Enhanced Basic Education Act of 2013 is an act that mandated the enhancement of the Philippine Educational System from a 10-year basic education to 12-year (K to 12) program. The K to 12 program includes the two-year specialized upper-secondary education composed of a core curriculum and tracks. One of the learning areas of the core curriculum is practical research.

Practical research is one of the applied subjects required on all tracks and strands but must be taught in the context of the track. Meaning, all students are expected to acquire the learning competencies stipulated in the curriculum guide but the desired research outputs vary depending on their respective strands and tracks. Practical Research was written to cultivate among learners the necessary research capabilities and skills in different fields. Asserted by Bangayan- Manera (2020), its goal is to initiate learners to become equip with the basic skills in qualitative and quantitative researches and to teach them to use these skills in making decisions and solving problems that they encounter in their everyday lives. With these skills, learners may be able to develop a critical mind, decision-making skills, and become a 21st century learner the K to 12 envisions them to be.

However, a lot has been said and written about student readiness in terms of prepping them up for learning, motivating them, incentivizing learning, creating a conducive environment to facilitate learning and so on. But very often the most crucial element, an undeniable prerequisite and an uncontentious factor namely teacher readiness gets overlooked in the discourses on approaches to maximize learning outcomes of the students. The challenge lies on the fact that Senior High School Program is new and its human resources are majorly young and new and the bottom line question is “How ready are these SHS Teachers in teaching Practical Research?”. A holistic approach to education does not exclude the educators themselves. This concept does not apply only to the students because the school is a learning community comprising students, teachers, administrators and management too. The process involved in facilitating learning of students provides insightful learning experiences for all the stakeholders, albeit of a different nature.

With the unstoppable full-implementation of the K to 12 programs of the Department of Education in the Philippines, accountability for teacher quality in every school has become one of our nation’s educational reform priorities. Researchers have demonstrated that teacher quality was the single most important factor influencing student achievement Cunningham & Allington (2003).

The challenges of senior year described demonstrate the magnitude of the problems educators face in creating an educational experience that truly prepares students for life after graduation. In the four walls of the classroom, the teachers need to be cognizant of the strategies to react to unprecedented demands of the 21st century learners. These are some of the real life personal disorientations that teachers experience due to their inadequate preparation for teaching practical research. Such disorientations also occur due to the perception that their work environment is a replication of what they have experienced in the learning environment whereby facilitation, instruction and guidance becomes the culture to be adhered to.

Practical Research is highly technical in nature. One needs exposure in reading, writing and statistics to be able to translate competencies to students. Writing according to Talosa, A.D & Maguddayao, R.N (2018) is considered varied with context and cannot be distilled down to a set of abstract cognitive or technical abilities.

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One study conducted by Biruk (2013) on the practices and challenges in doing research in Sululta Secondary School in Ethiopia revealed that only a few teachers were engaged in research due to lack of enough research knowledge.

If the problem is not given serious consideration, then this presumably will leave an impact on the teachers' anxiety over the lack of skills. It is high time that this problem regarding the health of the education system determined primarily by teachers' exposure, attitude and competencies in practical research be given considerations. This is the reason to which the researcher embarked to venture this study entitled, "Research Exposure, Attitude and Competencies of Teachers: Basis for Enhancing Practical Research Capability and Productivity of Senior High School"

Research Questions

The general objective of the study is to determine the research exposure, attitude towards research and research competence of the Senior High School teachers. Specifically, it sought to find answers on the following questions:

1. What is the profile of the Senior High School teachers in terms of the following variables?
    - 1.1 Age
    - 1.2 Sex
    - 1.3 Specialization
    - 1.4 Length of Service
    - 1.5 Highest educational attainment
    - 1.6 Research-related subjects undergone
    - 1.7 Seminars/Trainings along Research attended
2. What is the research exposure of the Senior High School teachers in terms of the following aspects?
    - 2.1 Research development
    - 2.2 Research presentation
    - 2.3 Research publication
3. What is the attitude of the Senior High School teachers towards research with respect to the following criteria?
    - 3.1 Usefulness to profession
    - 3.2 Anxiety
    - 3.3 Positivity
    - 3.4 Difficulty
4. What is the level of competence of the Senior High School teachers in research?
5. Is there a relationship between the level of competence of the Senior High School teachers in research and the following variables?
    - 5.1 Profile
    - 5.2 Research exposure
    - 5.3 Attitude towards research

II. METHODOLOGY

Research Design

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The descriptive-correlational method of research was employed in the study. This is the most appropriate design used since the study sought to evaluate the demographical data of the respondents along their sex, age, highest educational qualifications, and length of service, available research-related resources, seminars and trainings attended. The study also assessed the research exposure, attitude and competencies of the teacher-respondents.

Correlation on the other hand was used as the study determined the significant relationship among the teachers' exposure, attitude and research competence.

Locale of the study

This study was conducted on the select Public Secondary Schools that offer senior high program in the whole District 1 of Cagayan.

Respondents of the Study

All information and personal details from the instructor participants in this study were maintained with the strictest confidentially for ethical reasons. A request letter was issued to the school administrators seeking consent before the researchers chose and identified the participants. The letter stressed the study's goal and the importance of its completion. The respondents of the study were the senior high school practical research teachers of the Department of Education who are teaching practical in the Cagayan District 1. The researcher used complete enumeration to determine the respondents of the study.

Research Instruments

The main instruments that was used in gathering the necessary data for the study is a Survey- Questionnaire. The said survey-questionnaire was composed of three parts. Part I elicited on the demographic profiles of the teachers in terms of sex, age, highest educational qualifications, length of service, research-related subjects undergone.

Part II gathered data related to the research exposure of senior high school teachers. Part III gathered data related to the respondents' attitude towards research. A 5 point likert scale was used to rate the respondents' attitude on the statements provided. The instrument was divided into multi-dimensional factor which included the following: usefulness for profession; anxiety; positive attitude; and research difficulty. The instrument was adopted from the study of Papanastasiou (2005).

Part IV of the instrument assessed the research competence of the teachers in teaching practical research. Items were lifted from the competencies and performance standard stipulated in the SHS curriculum guide.

Analysis of data

The data that were gathered from the respondents were classified, tabulated, interpreted and analyze through the use of the following statistical tools.

Frequency, percentage counts, percentage distribution, means and standard deviations and the descriptive statistics were utilized to describe the profile variables of the senior high school teachers.

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As to the correlation, the data that were gathered were analyzed with the use of Statistical Software at 0.05 level of significance.

III. RESULTS AND DISCUSSION

Age

Table 1 shows the distribution of teachers in terms of age. It can be gleaned from the table that 33 percent of the teachers who are teaching practical research belong to the bracket of 21-25. Sixteen or 26 percent fall with the age ranging from 26-30. Nine or 15 percent of the teachers have an age ranging from 31-35 followed by six or 10 percent who belong to the age bracket of 41-45. Meanwhile, four or seven percent of them belong the age brackets of 36-40 and 46-50 respectively while one or two percent of them belong to the age bracket of 51-55. The finding indicates that most of the teachers handling practical research in the first district of Cagayan are predominantly young teachers as concretized by the mean age of 31 with a standard deviation of 8.19.

Table 1. Distribution of the Senior High School teachers in terms of age

Age (in years)	**Frequency (n=60)**	**Percentage**
51 to 55	1	2
46 to 50	4	7
41 to 45	6	10
36 to 40	4	7
31 to 35	9	15
26 to 30	16	26
21 to 25	20	33
Mean = 31.00	**S.D. = 8.19**	

Sex

Table 2 presents the profile of the teacher in terms of sex. It shows that among the 60 respondents, 31 of them or 51.51 percent are female while the rest covering 48.33 percent are male. Thus, in the Department of Education, Division Office records or Plantilla for teachers, it appeared that there are more female than male Senior High School teachers in the Division of Cagayan. This finding clearly implies that teaching is indeed a female-dominated profession.

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Table 2. Distribution of the Senior High School teachers in terms of sex

Sex	Frequency (n=60)	Percentage
Female	31	52
Male	29	48

Specialization

Table 3 reveals the distribution of teachers in terms of specialization. Out of 60 respondents, 29 or 48 percent of the senior high school teachers who are teaching practical research are mostly English language majors, 11 or 18 percent are Mathematics, seven or 12 percent majors in Science, six out of 60 specializes in Social Science, one majors in Technical Vocational Livelihood Education and two out of 60 majors in Accounting or Banking and Finance.

This finding means that the teachers who handled practical research are predominantly English in specialization. This is accounted to the veracity that one content area for English in the senior high school is the practical research. Thus, most subjects are being handled by teachers whose specialization is English.

Table 3. Distribution of the Senior High School teachers in terms of specialization

Specialization	Frequency (n=60)	Percentage
English	29	48
Mathematics	11	18
Biology/Science/Gen Science/Physical Science	7	12
Social Sciences	6	10
Filipino	4	7
Accounting/Banking Finance	2	3
TLE	1	2

Length of Service

Apparent from table 4 is the distribution of teachers in terms of length of service. It is evident in the table that majority or 68 percent of the respondents are novice teachers who rendered 5 years-below service in the academe, nine or 15 percent already rendered 6-10 years in teaching service, only eight has a length of service of 16 years and above and 2 has 11-15 years teaching

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experience. This implies that since Senior High School program is new, majority of its human resources are also new. This finding supports the study of Tamanu M. (2017) that majority of the human resources of the senior high school program are still new to the teaching service.

Table 4. Distribution of the Senior High School teachers in terms of length of service

Length of Service (in years)	**Frequency (n=60)**	**Percentage**
16 to 20	8	14
11 to 15	2	3
6 to 10	9	15
1 to 5	41	68
Mean = 6.30	**S.D. = 6.87**	

Highest Educational Qualification

Table 5 tells the distribution of teachers as to their highest educational qualification. Forty percent of the teacher respondents currently enrolled in MA/MS program, 28 percent is with MA/MS degree, 17 percent has units earned or are currently enrolled in doctorate program, eight percent is a PhD graduate and only seven percent of the respondents are baccalaureate degree holder. The finding means majority of the teacher-respondents finished their master's degree. Also, some teachers are still on the verge of obtaining units for master's degree. This further indicates that the respondents are trying to update their educational qualification.

Table 5. Distribution of the Senior High School teachers in terms of highest educational attainment

Highest educational attainment	**Frequency (n=60)**	**Percentage**
Doctorate degree (Ph.D.)	5	8
On-going Doctorate schooling (Ph.D.)	10	17
Master's degree	17	28
On-going Masteral schooling (MA/MST.)	24	40
Baccalaureate degree	4	7

Research related subjects undergone

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The table displays the distribution of teachers in terms of research-related subjects undergone. As reflected, Educational Research ranked number 1 with a frequency of 30, followed by Language Research having a frequency of 25, Mathematical Research with a frequency of 11, Advanced Research with a frequency of eight and Science Research with a frequency of 6. Only two of the teacher-respondents did Social Research. One took business research, medical research and high school Investigatory Research respectively and two did not undergo any research-related subjects. As language research, mathematical research, science research and business research are researchers in the undergraduate courses, it could be inferred therefore that majority of the respondents only have undergone limited researches.

Table 6. Research-related subjects undergone by the Senior High School teachers

Research-related subjects	Frequency	Rank
Educational Research	30	1
Language Research	25	2
Mathematical Research	11	3
Advance Research	8	4
Science Research	6	5
Social Research	2	6.5
Business Research	1	8
High School Investigatory Research	1	8
Medical Research	1	8
None at all	2	6.5

**multiple response*

Seminars and trainings attended

Table 7 presents the distribution of teachers in terms of seminars and trainings attended. Apparent on the table, local trainings including Division and Regional level ranked first with a frequency of 51, followed by international seminars and trainings with a frequency of ten and eight has national trainings . However, ten out of 60 do not have trainings at all. This finding means that majority of the seminars and trainings of the respondents are mostly local, most of which are delegated to the Regional and Division Offices of the Department of Education. Thus, there is a limited participation to National level Seminars and Trainings while International training are way too expensive. This may also be attributed from the fact that seminars and trainings are mostly not funded by the schools and teachers then spend their own money to attend such. Trainings and seminars are important for teachers to enrich their knowledge said Lartec et, al, 2014.

Table 7. Seminars or trainings along research attended by the Senior High School teachers

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Seminars or trainings along research	Frequency	Rank
Local (including Division and Regional level)	51	1
International	10	2.5
National	8	4
None at all	10	2.5

**multiple response*

Extent of Research Exposure of the teachers

Research Development

Table 8 displays the extent of research exposure of the teachers in terms of research development. It shows that among the research conducted by the respondent, undergraduate thesis ranked first (32), followed by master's thesis (22), action research (6), dissertation (5) and institutional research (3). However, 13 did not develop any research. The finding clearly insinuates that the research paper dominantly conducted by the key respondents is their undergraduate research. This finding implies that they are not fully exposed to research writing. The fact that that the most common research papers written by the senior high school teachers is thesis and dissertation may be attributed from the reasons that making and venturing only on research is a matter of fulfilling requirements.

Table 8. Exposure of the Senior High School teachers on research along research development

Type of Research	Frequency	Rank
Undergraduate thesis	32	1
Master's thesis	22	2
Action research	6	4
Dissertation	5	5
Institutional Research	3	6
None at all	13	3

**multiple response*

Research presented

As regards to the extent of research exposure of the teachers in terms of paper presented, Table 9 shows that teachers did not yet present any research paper in any fora ranked first as concretized by the frequency of 54, followed by local presentations (school, division level) with a frequency of five, research papers were presented internationally in an international research forum held in the Philippines with a frequency of two , and had a national presentation with a

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frequency of one and was presented in a national forum for researchers. One respondent confirmed that same research paper was presented on a local and national context.

This finding means that while there are respondents who have presented papers in International TESOL forum and International Research Paper Presentation in the Philippines, majority have no presentations. This finding corroborates with the findings in Table 8 that since the teachers have not conducted current research paper, they have nothing to present in different fora.

Table 9. Exposure of the Senior High School teachers on research along research presentation

Type of Research	Frequency	Rank
None at all	54	1
Local	5	2
International	2	3
National	1	4

**multiple response*

Paper published

Table 10 shows the extent of research exposure of teachers in terms of paper published. It is very evident that zero out of 60 teacher-respondents who taught practical research has not yet published any research paper in any research publication. On interviews, practical research teachers reported that they have zero research publication because one requirement for publication is copyright. And that, theses and dissertations can only be published if it is repackaged.

Table 10. Exposure of the Senior High School teachers on research along research publication

Type of Research	Frequency	Percentage
None at all	60	100

Attitude of the Senior High School teachers in Research

Research Usefulness for Profession

Table 11 reveals the senior high school teachers' attitudes in research along research usefulness in profession. The respondents regarded research as useful as agreed that they employ research approaches in the profession (4.05); research is useful in the career (3.98); is connected to the field of study (3.96); is useful to every professional (3.96); and is very valuable (3.95). They further agreed that the skills they have acquired in research will be helpful to them in the future (3.91); research should be indispensable in their professional training (3.85); knowledge in research is as useful as writing (3.83); research is as useful as writing (3.78); and research is beneficial, because it improves critical thinking (3.71).

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The overall weighted mean of 3.90 with a descriptive value of useful indicates that teachers are aware of the usefulness of research in their profession. Research studies are now gaining unprecedented focus and attention in the academe which establishes the veracity that doing research is not just imperative but a dire need. Educators need to be aware of the usefulness of research in their profession, for it provides practitioners with new knowledge and understanding about how to improve educational practices or resolve significant problems in classrooms and school, Stringer (2008). Further, research offers multiple beneficial opportunities for those professionals working within the teaching profession Johnson (2012). These opportunities include facilitating professional development of educators; increasing teacher empowerment and bridging the gap between research and practice Johnson (2012) & Mills (2011)

Usefulness to profession

Table 11. Attitude of the Senior High School teachers towards research with respect to its usefulness to their profession

Statements	Weighted Mean	Descriptive Value
1. Research is useful to the career.	3.98	Useful
2. Research is connected to the field study.	3.97	Useful
3. Research should be indispensable in professional training.	3.85	Useful
4. Research is useful to every professional.	3.97	Useful
5. Research is very valuable.	3.95	Useful
6. Research approaches can be employed in the profession.	4.05	Useful
7. The skills acquired in research will be helpful in the future.	3.92	Useful
8. Knowledge in research is as useful as writing.	3.83	Useful
9. Research is beneficial, because it improves critical thinking.	3.72	Useful
10. Research is as useful as writing.	3.78	Useful
Overall weighted mean	**3.90**	Useful

Research Anxiety

Table 12 details the senior high school teachers' attitude in research along research anxiety. The teachers have a very high level of anxiety that research make them nervous (4.72); research is time-consuming (4.7); is difficult (4.695); scares them (4.68); and is a complex task (4.67).

Furthermore they feel anxious because research requires too much analysis (4.64); they feel insecure concerning analysis of data (4.63) it makes them anxious (4.53); is stressful (4.48); and is complicated (4.45).

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The overall weighted mean of the research anxiety of teachers is 4.62 which has a descriptive value of very high. This finding is consistent with the study of Oguan et. al (2014) , Papanastasiou (2005), Wei et al (2015) who said that anxiety towards research affect ones attitudes or behavior towards research productivity.

Table 12. Attitude of the Senior High School teachers towards research with respect to their anxiety

Statements	Weighted Mean	Descriptive Value
1. Research induces nervousness.	4.72	Very high
2. Research is stressful.	4.48	Very high
3. Research developed anxiousness.	4.53	Very high
4. Research is scary.	4.68	Very high
5. Research is a complex task.	4.67	Very high
6. Research is complicated.	4.45	Very high
7. Research is difficult.	4.70	Very high
8. The analysis of data builds up insecurity.	4.63	Very high
9. Research is time-consuming.	4.70	Very high
10. Research requires too much analysis.	4.64	Very high
Overall weighted mean	**4.62**	**Very high**

Positive Attitude towards Research

Table 13 shows the senior high school teachers' attitude in research along positive attitude. It can be interpreted on the table that teachers exhibit positive attitudes that they are inclined to study the details of research (3.71); the intellectual challenge of academic research motivate them to work harder (3.65); they enjoy reading academic research papers they are interested in (3.61); they want to build a reputation as academic scholars through research (3.53); and acquired knowledge in research is as useful as arithmetic (3.51).

Furthermore, the teachers are have somewhat positive statements of sharing research results with other academic is very self-satisfying (3.32); they are interested in research (3.15); research is interesting (3.07); academic research has value to them and will participate at school (2.85); and most faculty benefit from research (2.83).

The overall weighted mean of positive attitude of teachers along research is 3.33 which has a descriptive value of somewhat positive. This finding implies that teachers in the division of Cagayan neither have low or high positive attitude toward research.

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Table 13. Attitude of the Senior High School teachers towards research with respect to positivity

Statements	Weighted Mean	Descriptive Value
1. The teachers are interested in research.	3.15	Somewhat positive
2. Research acquired knowledge is as useful as arithmetic.	3.51	Positive
3. Research is interesting.	3.07	Somewhat positive
4. Most faculty benefit from research.	2.83	Somewhat positive
5. The teachers are inclined to study the details of research.	3.71	Positive
6. Sharing research results with other academic is very self-satisfying.	3.32	Somewhat positive
7. The teachers want to build a reputation as an academic scholar through research.	3.53	Positive
8. Academic research has value.	2.85	Somewhat positive
9. The teachers enjoy reading academic research papers.	3.61	Positive
10. The intellectual challenge of academic research gives motivation to work harder.	3.70	Positive
Overall weighted mean	**3.33**	**Somewhat positive**

Research Difficulty

Table 14 exhibits the senior high school teachers' attitude in research along research difficulty. It can be viewed on the table that teachers find research very difficult that they find it hard to comprehend the interrelationship of variables in the conceptual framework (4.34); they find it difficult to understand the concept of research (4.34); they have trouble in crafting statement of the problem (4.27); they do not know the ability to synthesize related literatures and studies and to craft recommendation is always a challenge for them (4.25) respectively; they have problems when it comes to interpretation of data (4.24); and doing implications based on the results irritates them and they are not good enough in forming appropriate conclusions extracted from the results of the analysis (4.22) respectively.

Furthermore, the respondents find research difficult that research takes them too much time to integrate legal basis to support their research theoretical ground (4.19); and it is hard for them to decipher appropriate statistical tests and tools to measure data.

The overall weighted mean of the teachers' attitude along research difficulty is 4.25 with a descriptive value of very difficult, indicates that teachers lack orientation and other academic activities related to research. It is also evident according to Oguan et al (2014) and Papanastasiou (2005) that the development of difficulty is significantly related to research anxiety. Papanastasiou and Zembylas (2006) explains this as "being confronted with new and challenging material". They assert that teachers suddenly find themselves being introduced to completely new concepts that

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are often accompanied by mathematically-based ideas, and are confronted with new and challenging material which likely trigger a number of responses from teachers, including stress, uncertainty and anxiety which causes them to exhibit research difficulty. Therefore, there is a need for teachers to undergo seminars and trainings along research.

Table 14. Attitude of the Senior High School teachers towards research with respect to its difficulty

Statements	Weighted Mean	Descriptive Value
1. The teachers have trouble in crafting statement of the problem.	4.27	Very difficult
2. The teachers find it difficult to understand the concept of research.	4.32	Very difficult
3. The teachers find it hard to comprehend the interrelationship of variables in the conceptual framework.	4.34	Very difficult
4. The teachers do not appropriately know the ability to synthesize related literatures and studies.	4.25	Very difficult
5. It's hard to decipher appropriate statistical test and tools to measure data.	4.17	Difficult
6. The teachers have a problem when it comes to interpretation of data.	4.24	Very difficult
7. Doing the implication based on the results of the data is irritating.	4.22	Very difficult
8. The teachers are not good enough in forming appropriate conclusions extracted from the results of the analysis.	4.22	Very difficult
9. It takes too much time to integrate legal basis to support research theoretical ground.	4.19	Difficult
10. To craft recommendations is always a challenge.	4.25	Very difficult
Overall weighted mean	**4.25**	**Very difficult**

SHS Teacher's Research Competencies

Table 15 portrays the senior high school teachers' research competencies. As manifested in the table, teachers are fairly competent on the description of qualitative and quantitative research and the kinds of research across fields (3.08); knowledge on formulation of clear statement of the problem (3.05); construction of instruments and establishment of reliability and validity (2.9); selection, citation and properly related literature and selection of sampling

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techniques and statistical tools (2.81) respectively; and gathering relevant information with intellectual honesty (2.8). Furthermore, they are fairly competent in the formation of logical conclusions (2.71); knowledge on quantitative and qualitative research designs, data collection and analysis of procedure (2.68); usage of sources according to ethical standards (2.66); and illustration and explanation of conceptual framework.

The overall weighted mean of the senior high school teachers' research competence is 2.81 which has a descriptive value of fairly competent. This finding insinuates that the senior high school teachers' competence is in midpoint, meaning they are uncertain of their competence in research. Teachers who carry the vital responsibility to create a knowledge society should at first themselves possess research qualifications and competence, considering that the purpose of an education system is to raise research individuals who possess scientific attitudes and behaviors, it is of capital importance that teachers having research qualifications and positive affective attitudes towards research. Research qualifications have been listed by Buyokozturk (1999) as being capable of "developing research project; limiting a topic and defining research problem; reviewing literature in order to reach studies and periodicals about a specific subject; stating the research problem as a hypothesis, question, statement, or sentence; collecting raw data via convenient tools (questionnaire, observation, meeting, document scanning); evaluating the collected data properly (analyzing) ; and preparing a scientific report by considering its rules, ethical guidelines and principles. Ekiz (2006) stated that most teachers are willing to conduct research in order to help students more easily and develop their own competence and instructional strategies and methods to facilitate learning.

Table 15. Level of competence of the Senior High School teachers in research

Competencies	Weighted Mean	Descriptive Value
1. Knowledge on formulation of clear statement of the problem	3.05	Fairly competent
2. Selection, citation and synthesis of properly related literature	2.81	Fairly competent
3. Knowledge on quantitative and qualitative research and the kinds of research across fields	2.68	Fairly competent
4. Usage of sources according to ethical standards	2.66	Fairly competent
5. Description of qualitative and quantitative research designs, data collection and analysis procedure	3.08	Fairly competent
6. Gathering of relevant information with intellectual honesty	2.80	Fairly competent
7. Formation of logical conclusions	2.71	Fairly competent
8. Illustration and explanation of conceptual framework	2.59	Fairly competent

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9. Construction of instruments and establishment of validity and reliability	2.90	Fairly competent
10. Selection of sampling techniques and statistical tools	2.81	Fairly competent
Overall weighted mean	**2.81**	**Fairly competent**

Relationship between the Senior High School Teachers' Level of Competence in Research and the Selected Variables

Profile of the Senior High School teachers

The study hypothesized that there is no significant relationship between level of competence of the Senior High School teachers in research and the profile of the respondents. Table 16 shows that three variables (age, sex and length of service) significantly relate to the teachers' research competence. The null hypothesis therefore is rejected.

Age as reckoned by its computed correlation coefficient of 0.326 with a probability of 0.011 relates to teachers' research competence. Higher competence is associated to older or seasoned teachers. This is attributed to the length of service the teachers have rendered in the academe. Thus, making them gain more knowledge, skills, experiences, update their educational qualifications, undergo various trainings and seminars in the research-related field.

Consequently, sex is also found significantly related as reckoned by its correlation coefficient of 0.290 and a probability of 0.025. Higher competence in research is more associated to male teachers (coded as 1) than to female teachers (coded as 0). This is attributed from the fact that women are linguistically intelligent and men are numerically intelligent. This finding implies that since statistics (a branch of applied mathematics concerned with the collection and interpretation of quantitative data and the use of probability theory to estimate population parameters) is indispensable in research, thus, requires logical thoughtfulness,. Men are more likely to develop higher competence in the field. This finding corroborated the research studies conducted by Loori, A. Ali (2005) and Al Faoury, H.O & Smadi , M.O (2015). Loori, A, Ali (2005) found that males preferred logical and mathematical intelligences whereas females preferred interpersonal intelligence. Al-Faoury, H.O & Smadi, M.O (2015) found that males favored logical intelligence while females favored linguistic intelligence.

More so, length of service is also found significantly related as manifested by its correlation coefficient of 0.287 and a probability of 0.26. The longer they are in the teaching service, the higher the teachers' competence in research. This is attributed to the fact that length of service is associated with higher positions in teaching. Thus, this is synonymously related to higher competence in research because teachers with higher positions are required to conduct and develop researches. More so, since the senior high school program is still in its second year of full implementation, majority of the teaching workforce are also young and new in the academe as corroborated in the tables 1 and 4. The importance of the finding is heightened given the context in which the teaching workforce has become less experienced. The benefits of teaching experience will be best realized when teachers are carefully selected and well prepared at their point of entry into teaching workforce, as well as intensively mentored and rigorously evaluated prior to

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receiving tenure. This will ensure that those who the professional tier of teaching have met a competency standard from which they can continue to expand their expertise throughout their career. Although teachers improve at greater rates during the first few years of their careers, teachers continue to improve, albeit at lesser rates throughout their career, T., Kini, & A. Podolsky (2016)

Table 16. Correlation results between the Senior High School teachers' level of competence in research and their profile

Variables	Correlation Coefficient	Probability	Statistical Inference
Level of competence in research			
Profile			
Age	0.326	0.011	Significant
Sex	0.290	0.025	Significant
Specialization (using χ^2)	100.857	0.806	Not significant
Length of Service	0.287	0.026	Significant
Highest educational attainment	0.231	0.076	Not significant
Research-related subjects undergone	0.057	0.664	Not significant
Seminars/Trainings along Research attended	-0.086	0.512	Not significant

**tested at 0.05 level of significance*

Research Exposure Senior High School teachers

Table 17 shows the correlation results between the senior high school teachers' level of competence in research and their research exposure. Based on the conglomerated result, there is no significant relationship between the senior high school teachers' level of research competence and their research exposure. Rechecking on the raw data, the senior high school teachers have only experienced at most three times writing and presenting researches. Thus, obviously, such exposure does not bring a significant effect on the level of competence of teachers.

Table 17. Correlation results between the Senior High School teachers' level of competence in research and their research exposure

Variables	Correlation Coefficient	Probability	Statistical Inference
Level of competence in research			
Research Exposure			
Research development	0.145	0.268	Not significant

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Research presentation	-0.001	0.994	Not significant
Research publication	Cannot be computed since it is constant		

**tested at 0.05 level of significance*

Attitude of the Senior High School teachers towards research

Apparent in table 18 is the correlation results between the senior high school teachers' level of competence in research and their attitude towards research.

The study hypothesized that there is no significant relationship between level of competence of the Senior High School teachers in research and their attitude of the towards. Table 18 shows that respondents' positive attitude towards research significantly relates to the teachers' research competence. The null hypothesis therefore is rejected. Positive attitude towards research is found significantly related as reckoned by its correlational coefficient of 0.371 and a probability of 0.003. This finding means that the more positive the teachers' attitude in research, the higher their research competence. This implies that having a positive attitude towards research is a basic requirement for teachers to teach the subject. Thus positive attitude is a contributory factor to performance and competence Papanastasiou (2005).

Table 18. Correlation results between the Senior High School teachers' level of competence in research and their attitude towards research

Variables	**Correlation Coefficient**	**Probability**	**Statistical Inference**
Level of competence in research			
Attitude towards research			
Usefulness to profession	0.123	0.349	Not significant
Anxiety	-0.116	0.377	Not significant
Positivity	0.371	0.003	Significant
Difficulty	-0.129	0.326	Not significant

**tested at 0.05 level of significance*

IV. CONCLUSION AND RECOMMENDATIONS

Conclusions

The study reveals that majority of the Senior High School teachers who teach Practical Research exhibit somewhat positive attitude towards research, thus, they regard research as useful to their profession. However, they show very high anxiety and display high level of difficulty because of their low exposure to research development, presentation and publication. Further, the more useful the teachers think of research, the higher their level of positivity towards research.

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Then, the higher their research difficulties, the higher is their level of research anxiety. Furthermore, the more experienced the teachers are, the higher their level of competence in Research. The more the teachers' exposure in research, the higher their level of competence.

Pedagogical Implication

The study highlights the importance of research exposure and research attitude. The study emphasizes that as catalysts for change and responsible agents for the improvement of their own classroom teaching and for uplifting students learning, Practical Research teachers to be able to translate competencies of Practical research 1 and 2 should also be well exposed in research through writing, completing, publishing engagements to bridge the gap between research findings and classroom practices and enhance their professional growth and development as one of the key result areas for the individual teacher's performance commitment and review. Teaching strategies and pedagogies could be manifested best when one is exposed and experienced with target subject competencies. Ulla, M. et.al, 2017 emphasized that teachers who do research may not only find solution to, reflect on, and learn from the existing problem they have in their classrooms, but they also become equipped with knowledge and skills in doing research. As such, doing research is indeed a significant contribution towards teachers' professional development. Addressing their needs would uplift the spirit because doing research as literatures support develops and improves teachers' teaching knowledge and confidence (Borg, 2014), broadens and deepens understanding of their own teaching styles and students' learning strategies (Borg, 2014; Hong and Lawrence, 2011; Burns, 2010), and makes them responsible and accountable for the improvement of their teaching practice (Morales, 2016).

Recommendations

1. Relevant to this, the findings present enormous opportunity for the Department of Education to help to open the doors for teachers to intensify their research experience and provide professional development and opportunities that can help to de-mystify the procedure and ignite a passion for research. To boost teachers to research exposures, the Department of Education should encourage all practical research teachers to conduct researches with incentives.
2. Subsequently, the learning institutions should uphold its programs on Research Projects and must support teachers to attend continuing education as well as national and international trainings and webinars to hone and upgrade their research skills.
3. Administrators and supervisors should choose teachers who are highly qualified to teach research subjects of the senior high school regardless of their field of specialization and allow them to collaborate with any educational practitioners whose knowledge and competencies are in line with the field.
4. Teachers should show enthusiasm towards research in their profession to be able for the students to imitate their positive behaviors towards research.
5. The future researchers and current researchers of Practical Research may consider this as study a baseline to further ascertain the result of this present study. With respect to teaching and learning, it is worth highlighting that another study should be conducted

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underscoring on the effective strategies utilized by teachers in achieving the desired competencies in Practical Research.

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