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Senior High School Teachers' Research Competence and Satisfaction with Facilities and Resources

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ABSTRACT

This study aimed to determine the level of Senior High School Teachers' Research Competence and Satisfaction on Facilities and Resources and the relationship among these variables. It utilized the descriptive-correlational research design through survey method. The results of the findings revealed that most of the respondents were graduates of BSEd-English with master's unit, rendered 0-5 years, had taught the Practical Research subject for two semesters, and attended the Mass Training for Applied subjects. Generally, Practical Research teachers are competent in terms of technical aspects, major parts of the research paper, other parts of research paper and other-research skills. They are Not Satisfied on the facilities and resources provided by the school. Teachers viewed that their profile have no impact to their research competence. There was no significant difference on the level of satisfaction on facilities and resources in terms of area of specialization, number of years in service, number of semesters in handling Research subjects and seminar-trainings attended. However, there is significant difference on the level of satisfaction on facilities and resources in terms of highest educational attainment. Finally, there was a correlation between the level of research competence and satisfaction on the facilities and resources. This research concludes that the teachers' research competence is interrelated by their satisfaction level on the facilities and resources. However, this level of satisfaction can be attributed to their educational attainment. The higher the level of their educational attainment the more they will demand on the facilities and resources to be provided by the school. Recommendations were proposed to enhance teachers' research competence.

1. Introduction

Research, as a primary function of the academia, is a prime source of knowledge and innovation at national, regional, and international levels and is closely linked to national and international development (Meek, Teichler, & Kearney, 2009). There can be no progress without research in almost, if not, all human endeavors. In the aspect of education, research is vital and essential in improving the quality of teaching and learning. Therefore, the methods and techniques must be taught and learned by individuals who undergo research activities in the educational work.

Realizing the value of research in the country's development, the Philippine government through the Department of Education embedded Research subjects in its Senior High School curriculum as part of the Applied or Contextualized Subjects. Its main rationale is to enhance the students' critical thinking as well as problem-solving skills as they go through experiential learning. Since research is an advanced course for 21st-century learners, it requires highly skilled teachers who are good enough in both pedagogy and research techniques. This is imperative since teaching and research are core activities of

teachers (Zubrick, Reid, & Rossiter, 2001). It is in the teachers' research competence that development and sustainability of the school towards excellence will be achieved.

One of the challenges faced by the teachers in the Department of Education (DepEd) is their lack of training and experience which somehow affects their competence in teaching and conducting Research. As a former Practical Research 1 and 2 (Qualitative and Quantitative Research) teacher, the researcher observed that many Senior High School teachers, specially those teachers who have not yet undergone thesis writing in post-graduate studies are hesitant to handle these subjects. They would reason, "One cannot give what he does not have". In the same manner, teachers cannot properly facilitate learners without their skills in Research. For this reason, teaching Research will not become effective if teachers themselves lack the necessary competence.

In addition, Castaldi (n.d.) stressed that "provision of educational facilities enables teachers to achieve a level of instructional effectiveness that far exceeds what is possible when they are not provided" (as cited by Lawanson & Gede, 2011). For example, Research teachers need to help students find articles from journals and previous studies in order to write the Theoretical Background. In showing students ways to document, the teacher needs audio-visual materials and even an Internet connection to make the study succeed. When these facilities are not provided, the teacher might really have a hard time in letting her students come up with a good research.

The aforementioned premises motivate the researcher to conduct a study that will ascertain the teacher's level of research competence with the end view of crafting a training program that would enhance their research skills and widen their pedagogical knowledge on various approaches in research (e.g. Qualitative and quantitative research). The researcher also believes that this study will somehow address the needs of Senior High School teachers who have difficulties and problems particularly with the provision of facilities and resources that would aid them in teaching research. Hence, this study was proposed.

This study aimed to determine the Senior High School teachers' profile, research competence and satisfaction with the facilities and resources of the public and private secondary schools in Bilar, Batuan, Carmen, Sierra Bullones and Pilar (BIBACASIPI) Districts of school year 2017-2018. Specifically, this study is guided with the following objectives: to determine the profile of the Senior High School Teachers in terms of area of specialization, number of years in service, number of semesters in handling Research subject, highest educational attainment, and seminars attended; the level of research competence of the Senior High School Teachers in terms of technical aspects, major parts, other parts of research paper; and other research-related skills; the level of satisfaction with the facilities and resources as perceived by the Senior High School Teachers; the level of research competence and satisfaction with the facilities and resources of the Senior High School Teachers when grouped in terms of their demographic profile; significant difference on the level of research competence and the level of satisfaction in terms of their demographic profile; significant relationship between the research competence of the Senior High School Teachers and their level of satisfaction with the facilities and resources, and the program of action may be proposed based on the findings of the study.

3. Literature Review

The quality of education depends on the ability of the teacher and the standard of teaching. The teacher is the key to the learning process. A school may have the best facilities and excellent learning tools, but if the teachers are inefficient and incompetent, the whole educational program would collapse. Hence, teachers' competence in handling a subject will lead to the student's success.

In this study, the teachers' research competence was determined. Caliwan-Fuentes (2017) opines that research competencies are needed skills and experience to do research. Such skills could have been developed or enhanced through schooling, seminars and similar activities attended. Experiences in the conduct of research also contribute to enhancing research competencies and outputs, as the next frontier, after the improved educational delivery. This study on teachers' research competence is based on Competence Motivational Theory, Social Career Cognitive Theory and Theory of Work Adjustment.

Competence Motivational Theory of Robert White and Susana Harter (1978) held that competence motivation serves to enhance the abilities of the person. Competence is not based on a state of biological deprivation and reinforced by alleviating

the deprivation. Instead, the theory advocates that competence helps one to improve oneself. People often engage in activities simply to experience competence (Harter's Competence Motivation Theory, 1978).

The Research teacher who envisions to continuously become more competent defines his career path and this may be affected by some factors. Social Career Cognitive Theory (SCCT) developed by Robert W. Lent, Steven D. Brown, and Gail Hackett in 1994, incorporates a variety of concepts (e.g., interests, abilities, values, environmental factors) that appear in earlier career theories and have been found to affect career development. The theory states that people are likely to form enduring interest in an activity when they view themselves as competent at performing it and when they expect the activity to produce valued outcomes. Conversely, interests are unlikely to develop in activities for which people doubt their competence and expect negative outcomes. Furthermore, SCCT posits that for interests to blossom in areas for which people have talent, their environments must expose them to the types of direct, vicarious, and persuasive experiences that can give rise to robust efficacy beliefs and positive outcome expectations. Interests are impeded from developing when individuals do have the opportunity to form strong self-efficacy and positive outcome beliefs, regardless of their level of objective talent (*Social Cognitive Career Theory, n.d*.).
Another theory that supports this study is the Theory of Work Adjustment which is sometimes referred to as the Person–Environment Correspondence Theory states that the more closely a person's abilities (skills, knowledge, experience, attitude, behaviours, etc.) correspond with the requirements of the role or the organization, the more likely it is that they will perform the job well and be perceived as satisfactory by the employer (*Theory of Work Adjustment, n.d.*).

Strongly anchored on these theories, the present undertaking assumes that when teachers' competence towards research is high, they view themselves as capable at performing it which eventually results in producing better students' outcomes. In like manner, when teachers are satisfied with the facilities and resources offered by the school, the more they are motivated to perform their job well.

Aside from the theories, this study is also anchored on some legal bases. Article XIV of the 1987 Philippine Constitution states that every Filipino citizen has the right to quality education. It provides that the state shall establish, maintain, and support a complete, adequate and integrated system of education relevant to the needs of the people and society. Section 10 of Article XIV of the said constitution provides that the state shall give priority to research and development, invention, innovation and their utilization and the science and technology, training, and services (Official Gazette, 2015).

Agenda, guides the Department of Education (DepEd) and its stakeholders in the conduct of education research and in the utilization or research results to inform the Department's planning, policy and program development aligned with its vision, mission, and core values. It further states that the Basic Education Governance Act of 2001 underscored the role of research in the management and administration of the basic education system. With this mandate, DepEd has strived to strengthen research in the Department.

In addition, the Code of Ethics in Research also stated that researchers must protect the participants' right to privacy and confidentiality, ensure that informed consent is obtained from all human participants of our experiments or studies, maintain the autonomy of participants, especially students and subordinates, by refraining from offering inducements that may serve to coerce them into participating and safeguard the rights and welfare of persons and communities whose status and vulnerabilities may impair autonomous decision-making.

Responding to the Commission on Higher Education's development plan of enhancing research culture among higher education institutions, a study was conducted to analyze the research productivity of selected higher education institutions. Path analysis showed that educational attainment, research benefits and incentive system were important predictors of both research self-efficacy and research productivity. (Quimbo & Sulabo, 2014).

According to the Center of Evaluation and Education Policy Analysis of the United States (n.d.), had consistently found that school facilities impact teaching and learning in profound ways. Additionally, Laya, as cited by Salmingo (2011), said that competent faculty along with good student body, adequate facilities and an atmosphere of intellectual curiosity as manifested in the quantity and quality of research output of the institution are the indicators for institutional excellence. Based on Laya's claim, competence of the faculty does not suffice to successfully carry out Research instruction. It must be coupled with adequate facilities and an atmosphere conducive for the conduct of research.

Kunter, et.al (2013) identified that there are positive effects of teachers' pedagogical content knowledge or competence, enthusiasm for teaching, and self-regulatory skills on instructional quality, which in turn affected student outcomes. In the case of Research instruction, teachers' competence on technical writing, parts of the research paper, using ICT and application of ethics principle and procedure are the considerations in order to transform students to become young research enthusiasts.

Ismail and Meerah (2011) indicated that local institution training in research is comparable with universities abroad. However, the findings indicated that further improvement has to be made to excel this research competence and skills to higher level of competency. Thus, teachers should equip themselves with the skills and organize programs which are needed to achieve students' learning outcomes.

Moreover, Meerah, et.al (2011) in his other study stressed that students have moderate knowledge and competencies to conduct research. The implication of the study is that further enhancement of the teachers' research training is needed in order to produce very knowledgeable and skillful researcher in the students' field of specialization.
A teacher's research competence can be gauged by the research parts he samples to his students. One of the concerns in research is abstract writing. Lores (2004) found out that abstracts are indispensable tool for researches in the selection of papers which may be relevant to the research projects. Noguera (2012) concluded that prospective teachers and professionals should be aware of the fact that writing an abstract is not something to disregard as a minor genre. This is partly the teachers' job to make their student- researchers see the value of abstract writing.

Additionally, Gomez and Panaligan (2013) found that teachers are highly competent in research format but need reinforcement in the development of their communication skills. As to the major parts of the research paper, teachers seem to need competency on the method particularly in developing research design, constructing questionnaires and statistical tool or treatment.

Stallings (2008) in his study *Public School Facilities and Job Satisfaction*, suggested that work environment and availability of resources did impact the job satisfaction of teachers. Results of his study confirm that educators and policymakers should address the physical conditions of public school facilities and availability of resources as part of their efforts to improve teacher job satisfaction.

Marsh and Hattie (2002) states that a sense of satisfaction is an important basis of motivation. The degree of satisfaction with a task may affect the amount of discretionary resources (time, energy) that a person invests in a task. Thus, the more satisfaction an academic derives from teaching, the higher the expected teaching quality; similarly for research, and also for those who are committed to both teaching and research. Furthermore, the relation between satisfaction derived from research and from teaching may be one determinant of the relation between teaching and research outcomes.

Alrahlah (2016) claimed that the lack of adequate research facilities is one of the obstacles in conducting research. Library services are indispensable to researchers as all the respondents who were able to have at least one publication within the last two years affirmed using the library (Onuoha, Ikonne, & Madukoma, 2013). On the other hand, a study shows that better library facilities also elevate the research competence of researchers in terms of the number of articles and their quality (Hadjinicola and Soteriou, 2006).

Tiemo (2016) revealed that even though the library was faced with a lot of deficiency with respect to library resources and services, the users were not totally dissatisfied with them. Additionally, Musico (2008) states that faculty was moderately satisfied with library services and resources. Faculty looked for further improvements on library resources, staff and services. More books and modernization of library facilities were among their suggestions to improve the services and facilities of library. Among other suggestions were an exclusive area in the library for faculty members, more computers/work stations, online reservation, a place for group study, library staff must be more friendly and accommodating.

In addition, ICT competency is very important to improve the communication in the learning and teaching process. These competencies are concerned with the use of technology in managing and processing the information include all technologies for the manipulation and communication of information (Selvi, 2010). A study conducted by Okojie, and Olinzock (2013) stressed that majority of the participants acknowledged that they lack competence to use software applications to facilitate instruction.

Moreover, Sentovich (2004) revealed that teachers report higher levels of satisfaction when they have adequate resources like time and materials and when they have autonomy in their own classrooms. Principals of schools appear to be in the best position to directly influence teacher job satisfaction, but they need support from their community and school districts.

The above-findings were supported by Roco (2001) who stressed that to improve the quality of instruction, teachers must be well cared for. There is a need to know and understand teachers' needs and meet them as means of enhancing teaching performance. They should be given attention for them to mold the young minds with dedication and good service. Moreover, teachers must be well supported and cared for in order to motivate them in performing their tasks well.

Alim and Diocolano (2011) revealed that research experience, training, financial and technical support from the management also influence the research output and dissemination. In like manner, Kendagor, et. al (2012) found that funding influences in carrying out of research grant adequate to the institution and government for the research activities. Additionally, Bay and Clerigo (2013) cited that self-motivation, and skills are the fundamental drivers that encourage faculty to teach research.
In some aspects, teacher experience and teacher education level have been viewed as two characteristics that are related to teacher quality. On the other hand, experienced teachers have more opportunities to teach higher level or advanced classes, and thus have higher achieving students in their classrooms. Thus, it is possible that students with poor performance are more likely to have a double disadvantage because they are more likely to be taught by less experienced and may also be less competent teachers (Greenberg et al., 2004).

Besides, Kumar (2009) states that educational qualification of teachers, skills andexperience of teachers affect student learning. Highly qualified teachers can provide high scholarly instruction to students. Moreover, after increasing teaching experience, a teacher learns many new things for instruction which he can employ in the classroom. Bwendo (2015) confirmed that educational qualifications have a significant bearing on teachers' competence. The higher the education level, the more are the effects of education and skill on job performance. Additionally, Gilmore and Feldon (2010) states that master's level teachers reported higher levels of both teaching and research skills as compared with doctoral teachers.

On the other hand, Samuel and Utazi (2014) revealed that there is significant influence of teachers' area of specialization and there is a significant difference between more experienced and less experience on their level of competencies. Furthermore, researchers agree that teachers' content knowledge influences student performance. Researchers also agree that teaching experience is positively correlated with higher student achievement even though findings about its meaning vary. Additionally, studies show that teachers who have professional education training, or "pedagogy," produce higher student achievement than those who enter the profession and lack this background (Center of Public Education, 2007).

Finally, Osamwonyi (2016) states that the need for in-service education of teachers such as seminars, workshops, conferences, classes, exhibitions and others cannot be underestimated. It is a necessity in enhancing work performance and motivation of teachers in the field. Absence of in-service training of teachers will retard professional growth of teachers. Thus, it becomes imperative to enhance teachers' skills and competence. Additionally, Akram, et al (2015) claimed that there was a significant positive relationship between teacher competence and job satisfaction.

4. Methodology

This research utilized the enhanced questionnaire adopted from the study of Gomez and Panaligan (2013) as a tool in getting the Senior High School teachers' profile and their perceptions on their research competence and satisfaction levels with facilities and resources.

The said instrument has three parts. Part I dealt with the profile of the Senior High School teachers. Part II asked the teachers' research competence categorized in technical aspects, major parts, other parts of the research paper and other research-related skills. Part III dealt with the satisfaction level with the facilities and resources available in the school. The research instrument was supplemented by informal interviews with the respondents.

Upon retrieval, the data gathered were tabulated, treated, analyzed, interpreted and reported. Simple percentage was used to describe the profile of Senior high school teachers. The weighted mean was used to assess the level of the teachers' research competence and satisfaction with facilities and resources. After getting the mean, the data were interpreted using a scale. In addition, Analysis of Variance (ANOVA) was utilized to determine the significant difference of research competence

and satisfaction levels in terms of their demographic profile. Finally, Pearson Product Moment Coefficient of Correlation was used to determine the significant relationship between the research competence of the Senior High School Teachers and their level of satisfaction on the facilities and resources.

5. Results and Discussion

Table 1. Profile of the Senior High School Teachers

Profile of the Teachers	Frequency	Percentage
Area of Specialization		
English	17	50
Filipino	0	0
Science	2	5.9
Mathematics	14	41.2
Social Studies	1	2.9
Total	**34**	**100**
Number of Years in Service		
0-5	23	67.6
6-10	5	14.7
11-15	3	8.8
16-20	2	5.9
21 above	1	2.9
Total	**34**	**100**
Number of semesters in handling Research subject		
1	11	32.35
2	14	41.18
3	2	5.88
4	7	20.59
Total	**34**	**100**
Highest Educational Attainment		
BSED	4	11.8
BSED Qualifying	1	2.9
BSED with MA units	10	29.4
MA CAR	5	14.7
Full-fledged MA	8	23.5
Ph.D/Ed.D units	2	5.9
Ph.D/Ed.D CAR	1	2.9
Full-fledged Ph.D/Ed.D	3	8.8
Total	**34**	**100**
Seminar-Trainings Attended		
Mass Training for Applied Subjects	23	67.6
Training on Sampling Designs	0	0
Mass Training for Applied Subjects and Training on Sampling Designs	2	5.9
CPD on Research Seminar	1	2.9
None	8	23.5
Total	**34**	**100**

Area of Specialization. Seventeen (50%) of the teacher-respondents specialize English, fourteen (41.2%) specialize Mathematics, two (5.9%) of them on Science and one (2.9%) on Social Studies. The study reveals that most of the respondents finished BSED English. In an interview conducted, administrators assign English majors as Research subjects teachers in accordance to the suggestion and instruction of the Senior High School Consultant.

Number of Years in Service. Twenty three (67.6%) of the teacher-respondents had been teaching for less than 5 years, five (14.7%) had taught for 6-10 years, three (8.8%) had taught for 11-15 years, two (5.9%) had taught for 16-20 years and one (2.9%) had taught 21 years and above. Data show that the average length of service of the teacher-respondents was 0-5 years. This implies that the teachers in Research are generally neophyte in the service. The Theory of Work Adjustment proposes that teachers may or may not able to "adjust" after they have given Practical Research subjects. If they feel competent and their abilities correspond to the organization, they will perform their job well but if not, they may also feel incompetent.

Number of semesters in handling Research subject. Data reveal that fourteen (41.18 %) teachers handled Practical Research subjects for two semesters, eleven (32.35%) taught for one semester, seven (20.59%) taught for four semesters and two (5.88 %) handled the subject for three semesters. Thus, most of the respondents had taught the Practical Research subject for two semesters. Based on the informal interview conducted by the researcher, most principals assign different teachers to handle the Research subject in every semester. In this way, the experience of teaching research is shared.

Highest Educational Attainment. Data showed that ten (29.4%) of the teacher-respondents are baccalaureate degree holders with master's units, eight (23.5%) are full-fledged master's degree holder, five (14.7%) have obtained Complete Academic Requirements for MA degree, four (11.8%) are baccalaureate degree holders, three (8.8%) succeeded in obtaining a doctorate degree, two (5.9%) obtained doctoral units and only one (2.9%) has BSED-Qualifying units and Complete Academic Requirements in his doctoral degree respectively. Most Research teachers in this study have master's units. The researcher may have sensed competence but this may not be sufficient in carrying Research in the classroom setting.

Seminar-Trainings Attended. Out of the 34 teacher-respondents, majority (67.6%) had attended the Mass Training for Applied Subjects Seminar; eight (23.5 %) failed to attend any research-related seminar; two teachers (5.9 %) had attended the seminars for both Mass Training for Applied Subjects and Training on Sampling Designs and one teacher (2.9%) attended on the Seminar for Continuing Professional Development in Research. Data show that majority of the Research subject teachers attended the Mass Training for Applied Subjects.

Table 2. Research Competence in terms of Technical Aspects

Technical Aspects	**Teacher-respondents**	
	Weighted Mean	**Qualitative Description**
1. follow research paper format	3.35	Highly Competent
2. observe correct writing style, grammar and use of language.	2.97	Competent
3. utilize appropriate transitory elements to establish coherence and smooth flow of ideas.	2.91	Competent
4. apply communication skills (in writing and the conduct of research data gathering, interviews, etc.)	3.15	Competent
5. write a research title	3.24	Competent
Composite Mean	**3.12**	**Competent**

Table 2 presents the level of research competence in terms of Technical Aspects with their weighted mean. The overall assessment shows that they are competent with an overall weighted mean of 3.12 in the technical aspects. The respondents are highly competent in following research paper format and got the highest weighted mean of 3.35. On the other hand, they also regard themselves as competent in utilizing appropriate transitory elements to establish coherence and smooth flow of ideas and got the lowest weighted mean of 2.91 among the other aspects.

This means that the respondents are familiar or oriented with the standard format in research since most of them have master's units and even possess masteral and doctoral degrees. On the contrary, they still need to be trained to develop their writing to be more competent in teaching Research subjects considering that half of them are not language teachers or not in the field of language. This finding coincides with Gomez and Panaligan (2013) who found out that teachers are highly competent in research format but they need reinforcement in the development of their communication skills.

Table 3. Research Competence in terms of Major Parts of Research Paper

Major Parts of Research Paper	**Weighted Mean**	**Qualitative Description**
1: Introduction		
a. determine research relevance and usefulness to one's discipline	3.18	Competent
b. write an appropriate introduction	3.06	Competent
c. state research questions	3.18	Competent
d. conceptualize relevant and comprehensive research literature	2.88	Competent
e. cite sources of literature review using standard styles (APA, MLA or Chicago Manual of Style)	2.97	Competent
f. establish research gap in current situations	2.71	Competent
g. follow ethical standards in writing related literature	3.15	Competent
h. formulate theoretical / conceptual paradigm	2.94	Competent
i. formulate hypothesis	3.15	Competent
j. indicate scope and delimitation of study	3.15	Competent
k. cite benefits and beneficiaries of study	3.18	Competent
Composite Mean	**3.05**	**Competent**
2: Methods		
a. utilize appropriate research design	2.94	Competent
b. collect data using appropriate instruments	2.97	Competent
c. apply data entry (coding and cleaning)	2.76	Competent
d. apply sampling procedure	2.94	Competent
e. construct questionnaire	2.82	Competent
f. establish the validity and reliability of the questionnaire	2.65	Competent
g. apply statistical tools / treatment to analyze data	2.74	Competent
Composite Mean	**2.83**	**Competent**
Major Parts of Research Paper	**Weighted Mean**	**Qualitative Description**
3: Results and Discussion		
a. present the data gathered in a clear and unambiguous manner (tables, figures, graphs, etc.)	3.03	Competent
b. interpret/ analyze the results	3.06	Competent
c. correlate literature to affirm results	2.94	Competent
Composite Mean	**3.01**	**Competent**
4: Conclusion and Recommendation		
a. synthesize results of the findings	2.94	Competent
b. present conclusions that reflect the objectives, results and validate the theory used	2.91	Competent
c. formulate recommendations to address the research problem and concerns found in the study	3.03	Competent
Composite Mean	**2.96**	**Competent**
Overall Composite Mean	**2.96**	**Competent**

Table 3 presents the level of research competence in doing the major parts of the research paper. It is depicted from the table that in terms of major parts of research paper, teachers rated all the four areas as competent.

With regard to writing of introduction of the paper, the respondents are competent in determining research relevance and usefulness to one's discipline, stating research questions and citing benefits and beneficiaries of study and rated as highest in rank with a weighted mean of 3.18. On the other hand, establishing research gap in current situations is rated as the lowest

skill with a weighted mean of 2.71. The results signify that research for the respondent is significant to everyday life, hence, research-based outputs are useful in enhancing instructional delivery. They can also easily formulate specific questions of the study and can identify directly to whom the study will benefit. The result further implies that there is a need for strengthening the development of their skills on establishing research gap since this is the area where most teachers do not see themselves as competent as the other skills in this area.

As to method, collecting data using appropriate instruments obtained the highest weighted mean score of 2.97. On the other hand, establishing the validity and reliability of the questionnaire is rated as the lowest skill with a weighted mean of 2.65. This indicates that the teacher-respondents are experts in applying the appropriate tool in gathering data but not as much as in establishing the validity and reliability of the questionnaire since this is the work of a Statistician and majority of them are English majors. This was supported by Gomez and Panaligan (2013) who claimed that as to the major parts of the research paper, teachers seem to need competency on the method particularly in developing research design, constructing questionnaires and statistical tool.

As to the part on Result and Discussion, the respondents have an overall weighted mean of 3.01 and interpreted as competent. Interpreting and analyzing the results of the study got the highest weighted mean of 3.06 while correlating literature to affirm results got the lowest weighted mean of 2.94. This implies that teachers are equally competent in discussing the results of the study but they need to enhance their skills on how to provide related literature that would support the present study.

In terms of Conclusion and Recommendations, formulating recommendations to address the research problem and concerns found in the study obtained the highest weighted mean of 3.03 while presenting conclusions that reflect the objectives, results and validate the theory used obtained the lowest weighted mean of 2.91. This implies that the teachers find it easy to connect the findings with the conclusion and recommendations since it is the last major part of a research paper. In contrast, they have a problem on making conclusions that fits the objectives, results and validate the theory since this thing requires thorough analysis on the results of the study.

Table 4. Research Competence in terms of Other Parts of the Research Paper

Other Parts of Research Paper	**Weighted Mean**	**Qualitative Description**
1: Abstract		
a. present an accurate synopsis of the paper	2.82	Competent
b. clearly state the research focus	3.06	Competent
c. summarize the research methods used	3.06	Competent
d. outline the results and discussion of the study	3.06	Competent
e. summarize conclusion and recommendations of the study	3.09	Competent
f. use the abstract format	2.88	Competent
Composite Mean	**2.99**	**Competent**
2: References		
a. present / format the references	3.00	Competent
b. access the available and updated materials	2.97	Competent
Composite Mean	**2.99**	**Competent**
3. Appendices		
a. present / format the appendices	2.94	Competent
b. provide supplementary information to the main thesis	2.82	Competent
Composite Mean	**2.88**	**Competent**
Overall Composite Mean	**2.95**	**Competent**

Table 4 reveals the level of research competence in terms of other parts of research paper. The results indicate that teachers are competent in writing the Abstract, References and Appendices with an overall weighted mean of 2.95. Summarizing conclusion and recommendations of the study was rated as the highest among the three parts while presenting an accurate synopsis of the paper and providing supplementary information to the main thesis was rated lowest. This implies that making

conclusion and recommendation is quite easy for the respondents since these sections in writing the research paper do not require analysis and computation. Notwithstanding, teachers have the difficulty of crafting an accurate summary of the study and providing all the information that would supplement the manuscript.

Table 5. Research Competence in terms of Other Research-related Skills

Other Research-related Skills	**Weighted Mean**	**Qualitative Description**
1. ICT Skills		
a. use knowledge and skills in office applications (*e.g. word, excel, powerpoint*)	3.41	Highly Competent
b. perform internet research using search engines (e.g. Google Scholar)and research databases (e.g. ProQuest, PsychInfo)	3.18	Competent
c. conduct online communication (e.g. email)	3.12	Competent
Composite Mean	**3.24**	**Competent**
2. Application of Ethics Principle and Procedure		
a. respect the autonomy, decision-making and dignity of respondents	3.50	Highly Competent
b. minimize the risks (physically, psychologically, and socially) and maximize the benefits to research respondents	3.35	Highly Competent
c. select respondents from groups of people whom the research may benefit.	3.29	Highly Competent
d. protect and respect the values and interest of the community as a whole and protect the community from harm.	3.44	Highly Competent
Composite Mean	**3.40**	**Highly Competent**
Overall Composite Mean	**3.32**	**Highly Competent**

Table 5 shows the competency in terms of other research-related skills. Results show that teachers are highly competent with a weighted mean of 3.32 in terms of research related skills.

For ICT skills, using knowledge and skills in office applications (*e.g. Word, Excel, Powerpoint*) is perceived as highly competent with the highest weighted mean of 3.41. It is expected for teachers to possess these characteristics as 21st century teacher. The respondents considered themselves competent in conducting online communication (e.g. email) but with the lowest weighted mean of 3.12 among other skills in this area. This implies that researchers conducted research personally since doing such activities online may cause methodological flaws that threaten the validity of the data and any interpretations that may be drawn from them. Additionally, some online research and survey methods threaten the central tenets of human research: privacy, confidentiality and informed consent.

The result is supported by Selvi (2010) who claimed that ICT competency is very important to improve the communication in the learning and teaching process. It is in contrast to the finding of Okojie and Olinzock (2013) who found out that majority of the participants acknowledged their lack of competence to use software applications to facilitate instruction.

For the Application of Ethics Principle and Procedure, teachers rated all the items as highly competent with a weighted mean of 3.32. Respecting the autonomy, decision-making and dignity of respondents obtained the highest weighted mean of 3.50. Selecting respondents from groups of people whom the research may benefit obtained the lowest weighted mean of 3.29. This implies that teachers ensure the security and welfare of the respondents as well as the ethical considerations during the conduct of the study. The principle of confidentiality, anonymity, non-maleficence, and beneficence of the ethical standards

were observed. In contrast, teachers see themselves not as competent to select respondents from groups of people whom the research may benefit.

This finding assures the researcher that teachers follow the Code of Ethics in Research which states that researchers must protect the participants' right to privacy and confidentiality, ensure that informed consent is obtained from all human participants of our experiments or studies, maintain the autonomy of participants, especially students and subordinates, by refraining from offering inducements that may serve to coerce them into participating and safeguard the rights and welfare of persons and communities whose status and vulnerabilities may impair autonomous decision-making.

Table 6. Level of Research Competence

Research Competence	**Weighted Mean**	**Qualitative Description**
A. Technical Aspects		
Composite Mean	**3.12**	**Competent**
B. Major Parts of the Research paper		
1. Introduction	3.05	Competent
2. Methods	2.83	Competent
3. Results and Discussion	3.01	Competent
4. Conclusion and Recommendation	2.96	Competent
Composite Mean	**2.96**	**Competent**
C. Other Parts of Research Paper		
1. Abstract	2.99	Competent
2. Reference	2.99	Competent
3. Appendices	2.88	Competent
Composite Mean	**2.95**	**Competent**
D. Other Research-Related Skills		
1. ICT Skills	3.24	Competent
2. Application of Ethics Principle and Procedure	3.40	Highly Competent
Composite Mean	**3.32**	**Highly Competent**
Overall Composite Mean	**3.09**	**Competent**

Table 6 displays the overall level of research competence of the respondents. It can be noted from the table that they are competent in research in terms of Technical aspects, Major Parts of the Research Paper, other Parts of Research Paper and other Research-related Skills. The overall weighted mean of 3.09 suggests that the respondents possess the needed competence in teaching Research subject. Among the four areas, respondents are highly competent in terms of other research-related skills such as ICT skills and Application of Ethics Principle and Procedure and had the highest weighted mean of 3.32. On the other hand, they rated themselves lowest (2.95) in terms of other parts of the research paper such as abstract, reference and appendices.

This finding is closely akin to Harter's Competence Motivation Theory which advocates that competence helps one to improve oneself. People often engage in activities simply to experience competence. In addition, Social Cognitive Career Theory also states that people are likely to form enduring interest in an activity when they view themselves as competent at performing it and when they expect the activity to produce valued outcomes. Conversely, interests are unlikely to develop in activities for which people doubt their competence and expect negative outcomes. Hence, the teacher respondents see themselves manifesting the Research competence so they can deliver and carry out the said skills to the students.

Table 7. Teachers' Satisfaction in terms of Facilities and Resources

Facilities and Resources	Weighted Mean	Qualitative Description
1. computer units for research purposes	3.41	Less Satisfied
2. journals, books and other materials	2.62	Not Satisfied
3. provision of school supplies like bondpapers, folders, fasteners and ink for printing.	3.76	Less Satisfied
4. training area for in-house/small seminars	3.06	Less Satisfied
5. trainings in research	2.82	Not Satisfied
6. internet access	2.65	Not Satisfied
7. laboratories for experimental research	2.26	Not Satisfied
8. services of the statistician	3.03	Less Satisfied
9. services of editor/grammarian	3.21	Less Satisfied
10. services of the members of the panellists	3.74	Less Satisfied
11. consultation services of adviser	3.53	Less Satisfied
12. budget for research publications	2.12	Not Satisfied
13. budget for writing a research	2.24	Not Satisfied
14. budget for seminars and for a	2.65	Not Satisfied
Overall Weighted Mean	**2.94**	**Not Satisfied**

Table 7 shows the level of satisfaction with facilities and resources as perceived by the teachers. Generally, the respondents were *less satisfied* in computer units for research purposes, provision of school supplies like bondpapers, folders, fasteners and ink for printing, training area for in-house/small seminars, services of the statistician, services of editor/grammarian, services of the members of the panelists and consultation services of adviser. On the other hand, they signified that they were *not satisfied* in journals, books and other materials, trainings in research, internet access, laboratories for experimental research, budget for research publications, budget for writing a research and budget for seminars and fora. Provision of school supplies like bondpapers, folders, fasteners and ink for printing was rated as the highest with a weighted mean of 3.76 while budget for research publication was rated as the lowest with a weighted mean of 2.12. This implies that schools are giving priorities on schools supplies rather than providing budget on the reproduction of the manuscript. In totality, teachers are not satisfied of the research facilities and resources provided by the school. This indicates that the school research facilities and resources are inadequate to be utilized in transmitting to the learners the research knowledge and skills required in doing research activities.

This finding is supported by the Center of Evaluation and Education Policy Analysis of the United States (n.d.), who found that school facilities impact teaching and learning in profound ways. Laya, as cited by Salmingo (2011), also added that competent faculty along with adequate facilities as manifested in the quantity and quality of research output of the institution are the indicators for institutional excellence. The teachers' competence does not suffice to successfully carry out Research instruction. It must be coupled with adequate facilities and an atmosphere conducive for the conduct of research.

However, the finding of this study contradicts Musico (2008) and Tiemo (2016) who found out that faculty was moderately satisfied and were not totally dissatisfied with library services and resources even faced with a lot of deficiency

Table 8. Level of Research Competence and Satisfaction with Facilities and Resources in terms of Demographic Profile

Profile of the Teachers	f	Research Competence		Level of Satisfaction	
		WM	Qualitative Description	WM	Qualitative Description
Area of Specialization					
English	17	3.00	Competent	3.06	Less Satisfied
Filipino	0	0			
Science	2	3.00	Competent	2.50	Not Satisfied

Mathematics	14	3.14	Competent	2.79	Not Satisfied
Social Studies	1	3.00	Competent	4.00	Satisfied
Total	**34**				
Number of Years in Service					
0-5	23	3.05	Competent	3.00	Less Satisfied
6-10	5	3.20	Competent	3.20	Less Satisfied
11-15	3	3.00	Competent	3.33	Less Satisfied
16-20	2	2.50	Competent	2.00	Not Satisfied
21 above	1	3.00	Competent	2.00	Not Satisfied
Total	**34**				
Number of semesters in handling Research subject					
1	11	3.00	Competent	2.82	Less Satisfied
2	14	3.14	Competent	2.86	Less Satisfied
3	2	3.50	Competent	3.50	Not Satisfied
4	7	2.86	Competent	3.14	Not Satisfied
Highest Educational Attainment					
BSED	4	3.00	Competent	3.00	Less Satisfied
BSED Qualifying	1	4.00	Competent	4.00	Satisfied
BSED with MA units	10	3.00	Competent	3.00	Less Satisfied
MA CAR	5	3.40	Competent	2.40	Not Satisfied
Full-fledged MA	8	3.00	Competent	3.25	Less Satisfied
Ph.D/Ed.D units	2	3.00	Competent	2.00	Not Satisfied
Ph.D/Ed.D CAR	1	2.00	Moderately Competent	2.00	Not Satisfied
Full-fledged Ph.D/Ed.D	3	3.33	Competent	3.67	Less Satisfied
Total	**34**				
Seminar-Trainings Attended					
Mass Training for Applied Subjects	23	3.09	Competent	2.87	Not Satisfied
Training on Sampling Designs	0				
Mass Training for Applied Subjects and Training on Sampling Designs	2	3.00	Competent	3.50	Less Satisfied
CPD on Research Seminar	1	3.00	Competent	4	Satisfied
None	8	3.02	Competent	2.88	Not Satisfied
Total	**34**				

Table 8 portrays the level of research competence and satisfaction with the facilities and resources in terms of the demographic profile. It is detailed in the table that teachers are competent when they are grouped according to area of specialization, number of years in service, number of semesters in handling Research subject, highest educational attainment and seminars-trainings attended; however, it varies with the level of satisfaction with the facilities and resources.

In the aspect of area of specialization, the respondents were competent in all different subject areas. Mathematics teacher had the highest weighted mean of 3.14. On the other hand, English, Science and Social Studies teachers obtained the lowest weighted mean of 3.00. Meanwhile, in terms of level of satisfaction, Social Studies teacher had the highest weighted mean of 4.00 while Science teachers obtained the lowest weighted mean of 2.50. The study reveals that most teachers who took Mathematics major in their baccalaureate degree perceive themselves more competent in research as compared to those who took English, Science and Social Studies as their field of specialization. Additionally, Social Studies teacher is more

satisfied in compared to English, Science and Mathematics teachers. This conforms to the finding of Samuel and Utazi (2014) who revealed that there is significant influence of teachers' area of specialization on their level of competence.

As to the number of years in service, it is also noticeable that respondents in this aspect were all competent in all different ranges and differs in terms of satisfaction level. Teachers who have rendered 6-10 years in service and served for 11-15 years got the highest weighted mean of 3.20 and 3.33 respectively. In contrast, teachers who were in the service for 16-20 years and 21 years and above obtained the lowest weighted mean of 2.50 and 2.00 respectively. The results indicate that less experienced teachers who rendered 6-10 years in service claimed to be more competent in terms of research. This further implies that these teachers are more interested and possess adequate ability in research as compared to experienced ones. Moreover, teachers who have 11-15 average length of service are more satisfied. The finding supports Samuel and Utazi (2014) who revealed that there is a significant difference between more experienced and less experience on their level of competence.

As to the number of semesters in handling Research subject, teachers handling Research subject for three semesters had the highest weighted mean of 3.50. Teachers who have handled the subject for four semesters and 1 semester got the lowest weighted mean of 2.86 and 2.82 respectively. The results signify that teachers who have taught Research subject for three semesters are more competent and satisfied as compared to the newly-hired teachers. This finding conforms to the finding of Greenberg et al., (2004) that teacher experience has been viewed as one of the characteristics that is related to teacher quality.

As to the highest educational attainment, teachers who have obtained BSED-Qualifying got the highest weighted mean of 4.00. Meanwhile, teacher who have acquired Complete Academic Requirements and units for doctoral degree obtained the lowest weighted mean of 2.00. The result implies that teachers who have finished BSED-qualifying were more knowledgeable and skillful in research and satisfied with the research facilities and resources than those masters' and doctorate degree holders. The result contradicts to the study of Bwendo (2015), who confirmed that educational qualifications have a significant bearing on teachers' competence. The higher the education level, the more are the effects of education and skill on performance.

In terms of seminars-trainings attended, teachers who have participated the Mass Training for Applied Subjects and attended the CPD on Research seminar had the highest weighted mean of 3.09 and 4.00 respectively. On the contrary, teachers who have attended the seminars for both the Mass Training for Applied Subjects and Training on Sampling Designs and have not yet attended any seminar related to Research subjects and Mass Training for Applied Subjects got the lowest weighted mean of 3.00 and 2.87 respectively. This indicates that teachers who engaged in Mass Training for Applied Subjects have adequate research skills and knowledge as compared to teachers who have participated the seminars for both the Mass Training for Applied Subjects and Training on Sampling Designs and have not yet attended any seminar related to Research subjects. Additionally, teacher who participated the CPD on Research seminar is more satisfied in terms of research facilities and resources.

The finding supports Osamwonyi (2016) who stated that the need for in-service education of teachers such as seminars, workshops, conferences, classes, exhibitions and others cannot be underestimated. It is a necessity in enhancing work performance and motivation of teachers in the field. Absence of in-service training of teachers will retard professional growth of teachers. Thus, it becomes imperative to enhance teachers' skills and competence.

Table 9. Difference on the Research Competence and Satisfaction with the Facilities and Resources in terms of the Demographic Profile

Profile	**Research Competence**			**Level of Satisfaction**		
	F	**Sig.**	**Decision**	**F**	**Sig.**	**Decision**
Area of Specialization	0.435	0.730	Accept Ho	1.047	0.386	Accept Ho
Number of years in service	1.016	0.416	Accept Ho	1.737	0.169	Accept Ho

Number of semesters	1.046	0.387	Accept Ho	1.221	0.319	Accept Ho
Educational Attainment	1.260	0.308	Accept Ho	3.498	0.009	Reject Ho
Seminars-Trainings Attended	0.007	0.993	Accept Ho	0.230	0.796	Accept Ho

Table 9 presents the significant difference on the research competence and satisfaction with the facilities and resources in terms of the demographic profile. It can be gleaned from the table that there is no significant difference on satisfaction on the facilities and resources years in service, number of semesters handling research, highest educational attainment and seminars-trainings attended since the p-values of 0.730, 0.416, 0.387, 0.308 and 0.993 are higher than the 5% level of significance. Thus, the null hypothesis is accepted.

Moreover, there is also no significant difference on the level of satisfaction with the facilities and resources in terms of area of specialization, number of years in service, number of semesters handling research, and seminars-trainings attended since the p-values of 0.386, 0.169, 0.319, and 0.796 are higher than the 5% level of significance. Thus, the null hypothesis is accepted. On the other hand, there is a significant difference with the level of satisfaction in terms of highest educational attainment since the p-value is lower than the 5% level of significance. Thus, the null hypothesis is rejected.

The results of the study imply that teachers are statistically equal in terms of their research competence level regardless of their area of specialization, number of years in service, number of semesters handling research, highest educational attainment and seminars-trainings attended. The findings also indicate that the teachers regardless of their area of specialization, number of years in service, number of semesters handling research, and seminars-trainings attended have no impact in terms of their satisfaction level. However, they differ in their satisfaction level with the facilities and resources provided by the school when they are grouped in terms of their educational attainment.

The findings contradict to the study of Samuel and Utazi (2014) that revealed that there is significant influence of teachers' area of specialization and there is a significant difference between more experienced and less experienced teachers and their level of competence. However, Gilmore and Feldon (2010) support the finding which state that master's degree holders were reported to have higher levels of both teaching and research skills as compared with doctoral degree holders.

Furthermore, the Center of Public Education (2007) documents that researchers agree that teachers' content knowledge influences student performance. There were notions that teachers who teach subjects that they have previously studied in depth (by earning a major or minor in the field while in college or earning an advanced degree in the discipline) are particularly effective. Researchers also agree that teaching experience is positively correlated with higher student achievement. Additionally, studies show that teachers who have professional education training, or "pedagogy," produce higher student achievement than those who enter the profession and lack this background.

The finding of the present study also contradicts to Bwendo (2015) who confirmed that educational qualifications have a significant bearing on teachers' competence. The higher the education level, the more are the effects of education and skill on job performance. Meerah, et.al (2011) stressed that further enhancement of the teachers' research training is needed in order to produce very knowledgeable and skillful researcher in the students' field of specialization.

Table 10. Relationship between the Research Competence and the level of Satisfaction with the Facilities and Resources

	Mean	**Std. Deviation**	**r-value**	**p-value**	**Interpretation**	**Decision**
Research Competence	139.8824	18.92532	0.437	0.010	Moderately Strong Correlation	Reject Ho
Level of Satisfaction	41.0294	11.52201				

Table 10 illustrates the significant relationship between the research competence of the senior high school teachers and their level of satisfaction with the facilities and resources. Pearson Product-Moment of Correlation revealed that there was a significant relationship between the research competence of the senior high school teachers and their level of satisfaction with the facilities and resources since the computed p-value of 0.010 is lower than the 5% level of significance. Therefore, the null hypothesis is rejected.

On the other hand, the table exhibits a computed r value of 0.437 which means there was a moderate strong correlation between teachers' research competence and their level of satisfaction with the facilities and resources. This implies that the teachers' research competence is possibly affected by the facilities and resources offered by the school.

This finding is supported by Onuoha, Ikonne, and Madukoma (2013) who claimed that library services are indispensable to researchers as all the respondents who were able to have at least one publication within the last two years affirmed using the library. Moreover, a study shows that better library facilities also elevate the research competence of researchers in terms of the number of articles and their quality (Hadjinicola & Soteriou, 2006).

The said finding proves the Harter's Competence Motivation Theory which advocates that competence helps one to improve oneself. People often engage in activities simply to experience competence. In addition, the Theory of Work Adjustment states that the more closely a person's abilities (skills, knowledge, experience, attitude, behaviours, etc.) correspond with the requirements of the role or the organization, the more likely it is that they will perform the job well.

6. Conclusions and Recommendations

This research concludes that the level of teachers' research competence is correlated with
their level of satisfaction with facilities and resources. Their level of satisfaction with facilities and resources is attributed to their educational attainment. The more units they earn in advanced studies, they exude with more competence despite the unsatisfactory facilities and resources.

It is recommended that English teachers may pursue post graduate studies and conduct research studies, and may attend research related seminars or organize seminars or colloquiums. They may suggest to the school principals the purchase of journals, books and other materials, and request allocation for trainings in research, internet access, laboratories for experimental research, for research publications, writing a research and attendance to seminars and fora. Practical Research teachers who are Mathematics majors may share their competence to other teachers. Additionally, Social Studies teachers may share their ways on how they utilized the research facilities and resources in school so as other teachers will be satisfied. Instead of being less satisfied with the facilities and resources of their school, Practical Research teachers may develop the sense of resourcefulness in order to maximize those facilities and resources in the teaching-learning process and may continue to exude competence in their classrooms. A replicate study will be conducted to address other concerns and variables that may affect research competence and satisfaction levels on facilities and resources.

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