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Research Competence of Senior High School Teachers in City Schools of Pangasinan

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Abstract: This study determined the research backgrounds and productivity of teachers, their competence with respect to research skills, and examined their competencies to build their research capacities. A questionnaire was developed by the researcher based from the validated questions from different sources, the questions were summarized based from the objective and purpose of the study. Based from the results gathered, most of the respondents were master's degree holders in their respective fields. The knowledge of the Senior High School Teachers in terms of the leaning competencies in research is very adequate. On the other hand, the respondents were competent on the learning competencies on the said subject. Time management came out as the serious problem which was encountered by the teachers in teaching research. Cooperative leaning is the most effective strategy in response to the problems encountered by the teachers in teaching research.
Keywords : research, knowledge, competence

INTRODUCTION

Research has been a significant part of education in almost all fields. It is a systematic progression of gathering and analyzing data for the growth of understanding of a phenomenon [1]

In the Philippines [2], the Department of Education (DepEd) has issued an order to all of its school heads, supervisors, and teachers for the adoption of "the enclosed Basic Education Research Agenda" which promotes the "conduct of education research" in the country. The purpose of which is to identify teachers and department's concerns and problems, and to recommend solutions based on the results and findings made. With professional growth and development as one of the key result areas for the individual teacher's performance commitment and review, doing action research has already become part of the annual performance appraisal for all teachers. It comprises five percent of the total score in the individual teacher's evaluation. However, doing action research in the Philippine public elementary and secondary schools may not be that popular as a number of these teachers are not equipped with the necessary knowledge on what action research is and how to do it. DepEd has been doing significant ways to update and inform the public school teachers about the importance of doing research, but many teachers in both elementary and secondary schools were uninterested and demotivated. Factors like tight teaching timetable and heavy teaching workload are just few of the reasons why some public school teachers are not motivated and have no interest to do research.[3]

Research competence includes the entire complex of educational competences directly connected with thought, search, logic, and creative processes of students' knowledge mastering [4]. This is expressed as the enthusiasm and aptitude to master and accept systems of new knowledge self-sufficiently, as an outcome of the transmission of an activity, from functional to converting, on the basis of making a research development program.

OBJECTIVES OF THE STUDY

This study aims to explore the research backgrounds and productivity of teachers and determine their competence with respect to research skills, and examine their competencies to build their research capacities.

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MATERIALS AND METHODS

In this research, the instrument used was the survey questionnaire. This is composed of three (3) parts. Part I is all about the profile of the respondents. Part II is the level of research knowledge and competence of the Senior High School Teachers of City Schools of Pangasinan and Part III speaks of the degree of seriousness of the problems encountered by the teachers in handling the SHS research subjects. Part IV is all about some of the strategies in response to the problems encountered by the teachers in teaching research.

Appropriate statistical analysis will be used in the analysis of data. This will reveal the actual outcome of the study.

To determine the significant relationships in the research knowledge and competence of Senior High School teachers across their profile variables and for problem number 5, that is to reveal if there are significant relationships in the degree of seriousness of the problems encountered by the teachers in handling Senior high School research subjects across their profile variables, the statistical treatments used in both the problems was the Statistical Package for Social Sciences (SPSS).

RESULTS AND DISCUSSIONS

Profile of the Respondents

There were sixty – seven (67) or 30.7% male respondents and 0ne hundred forty-one (141) female respondents which is equivalent to 64.7% of the total number of respondents. In terms of age, twenty-three or 10.6% belong to the bracket 21-30 years old while fifty – six (56) or 25.7% comprise the age bracket of 31-40 years old. On the other hand, ninety – two (92) or 42.2 % were within the bracket age of 41-50. There were nine (9) or 4.1% who were within the bracket of 51-60 years old. Finally, nine (9) were above 61 years old which was 2.3% of the total respondent.

In terms of educational attainment, six(6) or 2.8% finished their bachelor's degree whereas one hundred fifty – seven (157) belong to the respondents who are master's degree holder, which is 72% of the total respondents meanwhile, six (6) or 2.8% are doctorate degree holder, thirty – two (32) are unit earners and four (4) have completed their academics requirements.

For the length of service in senior high school which was expressed in months, twelve (12) or 5.5% are just new in the senior high school. They have served from 0-6 months. On the contrary, thirteen (13) or 6% were in the 7-12 months in service. Thirty six (36) are only within 13-18 months in the service. Then there were one hundred twenty-five (125) of 57.3% who were in the senior high school from 19-24 months and these are the pioneers when senior high school has started.

In the senior high school curriculum, there are five strands which are being offered. The Accountancy and Business Management (ABM) Strand, teachers teaching in this strand have the following major subjects: Accountancy (1), Economics (1), Marketing (3), and eighteen (18) other respondents did not write their major subject. In the academic strand Science, Technology, Engineering and Mathematics major in Biological Science (11), General Science (5), Chemistry (14), Physics (3), and Mathematics (3). In the Humanities and Social Sciences (HUMSS); English (15), Filipino (21), Social Sciences (8). Arts and Design (A&D) strand, Physical Education and Health (14). Finally,Technical Vocational and Livelihood Strand, ICT (1) and TLE (18).

For the seminar and trainings which were attended by the respondents only fourteen wrote the seminars and training they attended, from school level up to the regional level.

There were forty-four (44) or 20.2% of the respondents who have completed researches while sixty – eight or 31.2% have on – going researches.

Table 1
Level of Knowledge of the Respondents in Terms of Nature and Inquiry of Research

Learning Competencies	Knowledge					Weighted Mean
	5	4	3	2	1	
Nature of Inquiry and Research						
I can share research experiences and knowledge.	51 (23.4)	53 (24.3)	47 (21.6)	10 (4.6)	27 (12.4)	4.0
I can explain the importance of research in daily life.	38 (17.4)	70 (32.1)	45 (20.6)	10 (4.6)	25 (11.5)	3.5
I can describe characteristics, processes, and ethics of research.	38 (17.4)	57 (21.6)	52 (23.9)	16 (7.3)	20 (9.2)	3.4
I can differentiate quantitative from qualitative research.	41 (18.8)	67 (30.7)	42 (19.3)	13 (6.0)	24 (11.0)	3.5
I provide examples of research in areas of interest (arts, humanities, sports, science, business, agriculture and fisheries, information and communication technology, and social inquiry).	27 (12.4)	65 (29.5)	60 (27.5)	13 (6.0)	22 (11.0)	3.3
I can describe characteristics, strengths, weaknesses, and kinds of quantitative research.	31 (14.2)	64 (29.4)	50 (22.9)	20 (9.2)	24 (11.0)	3.3

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I can illustrate the importance of quantitative research across fields.	31 (14.2)	56 (15.7)	61 (28.0)	18 (8.3)	22 (10.1)	3.3
WEIGHTED MEAN	**3.50**		**VERY ADEQUATE**			

Legend : (5) Extensive (4) Very Adequate (3) Adequate (2) Limited (1) Very Limited

Table 1 shows the level of knowledge of the respondents in terms of nature of inquiry of research. This implies that the senior high school teachers are "**very adequate**" in terms of teaching the characteristics, strengths, weaknesses, kinds of researches, and the importance of qualitative and quantitative research across fields together with the nature of variables.

Table 2
Level of Competence of the Respondents in Terms of Nature and Inquiry of Research

Learning Competencies	**Competence**					
	5	**4**	**3**	**2**	**1**	**Weighted Mean**
Nature of Inquiry and Research						
I can share research experiences and knowledge.	63 (28.9)	76 (34.9)	43 (19.7)	6 (2.8)	4 (1.8)	4.0
I can explain the importance of research in daily life.	55 (25.2)	70 (32.1)	52 (23.9)	7 (3.2)	4 (1.8)	3.9
I can describe characteristics, processes, and ethics of research.	42 (19.3)	82 (37.6)	52 (23.9)	9 (4.1)	4 (1.8)	3.8
I can differentiate quantitative from qualitative research.	48 (22.0)	76 (34.9)	55 (25.2)	5 (2.3)	4 (1.8)	3.8
I provide examples of research in areas of interest (arts, humanities, sports, science, business, agriculture and fisheries, information and communication technology, and social inquiry).	43 (19.7)	70 (32.1)	66 (30.3)	8 (3.7)	4 (1.8)	3.7
I can describe characteristics, strengths, weaknesses, and kinds of quantitative research.	38 (17.4)	78 (35.8)	58 (26.6)	12 (5.5)	3 (1.4)	3.7
I can illustrate the importance of quantitative research across fields.	44 (20.2)	72 (33.0)	61 (28.0)	7 (3.2)	6 (2.8)	3.7
WEIGHTED MEAN	**3.80**		**COMPETENT**			

Legend : (5)Highly Competent (4) Competent (3) Moderately Competent (2) Fairly Competent (1) Not Competent

Table 2 reveals the level of competence of the respondents in terms of nature of inquiry of research. Seventy – six (76) or 34.9%. Over – all, the level of the respondents in terms of the nature of inquiry of research is **"competent".**

Based from the study on competence-based approach requires teacher flexibility, mobility, research skills, allowing him/her to adapt his/her professionalism to the uncertainty conditions in a rapidly changing environment. An urgent task of higher career school is teaching students the ways of searching and processing scientific information through independent research practices. The need in information selection, the desire for independent search of necessary information, acquisition of fundamental knowledge that forms the theoretical basis of professional activities, the ability to create and implement new strategies and activities are the issues facing teachers[5].

Table 3

Level of Knowledge in Terms of Qualitative Research and Its Importance in Daily Life

Qualitative Research and Its Importance in Daily Life	**Knowledge**					
	5	4	3	2	1	**Weighted Mean**
I can describe characteristics, strengths, weaknesses, and kinds of qualitative research.	37 (17.0)	50 (22.9)	60 (27.5)	15 (6.9)	27 (12.4)	3.3
I can illustrate the importance of qualitative research across fields.	32 (14.7)	64 (29.4)	54 (24.8)	17 (7.8)	21 (9.6)	3.4
WEIGHTED MEAN	**3.30**		**ADEQUATE**			

Legend : (5) Extensive (4) Very Adequate (3) Adequate (2) Limited (1) Very Limited

Table 3 depicts the level of knowledge in terms of qualitative research and its importance in daily life. As a whole, the level of knowledge of the respondents in terms of qualitative research and its importance in daily life is interpreted as **"adequate".**

In a certain journal, the purpose of research is to inform action. Thus, the study should seek to contextualize its findings within the larger body of research. Research must always be of high quality in order to produce knowledge that is applicable outside of the research setting. Furthermore, the results of the study may have implications for policy and future project implementation [6].

Table 4
Level of Competence in Terms of Qualitative Research and Its Importance in Daily Life

Qualitative Research and Its Importance in Daily Life	**Competence**					
	5	4	3	2	1	Weighted Mean
I can describe characteristics, strengths, weaknesses, and kinds of qualitative research.	51 (23.4)	68 (31.2)	56 (25.7)	10 (4.6)	5 (2.3)	3.3

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I can illustrate the importance of qualitative research across fields.	39 (17.9)	74 (33.9)	59 (27.1)	9 (4.1)	7(3.2)	3.4
WEIGHTED MEAN	**3.80**		**COMPETENT**			

Legend : (5)Highly Competent (4) Competent (3) Moderately Competent (2) Fairly Competent (1) Not Competent

Table 4 tells the level of knowledge in terms of qualitative research and its importance in daily life. As a whole, the level of competence of the respondents in terms of qualitative research and its importance in daily life is interpreted as **"competent"**

According to a study, to develop research competence in prospective teachers, a system of methods for diagnostics and formation of this competence in prospective elementary school teachers in the training process is designed. To diagnose the research competence, a series of techniques were used that allow subtle evaluation of each competence research component: axiological, emotional-motivational, cognitive, behavioral, and control-evaluation. These techniques also give the opportunity to assess the level of research competence formation [7]

Table 5
Level of Knowledge of Senior High School Teachers in Identifying the Inquiry and Stating the Problem

Identifying the Inquiry and Stating the Problem	Knowledge					
	5	4	3	2	1	Weighted Mean
I can write a research title.	36 (16.5)	64 (29.4)	51 (23.4)	13 (6.0)	22 (10.1)	3.4
I can describe the justifications/reasons for conducting the research.	31 (14.2)	68 (31.2)	51 (23.4)	13 (6.0)	21 (9.6)	3.4
I can state research questions.	20 (9.2)	15 (6.9)	51 (23.4)	70 (32.1)	32 (14.7)	2.6
I can indicate scope and delimitation of research.	26 (11.9)	73 (33.5)	53 (24.3)	15 (6.9)	19 (8.7)	3.4
I can cite benefits and beneficiaries of research.	36 (16.5)	68 (31.2)	50 (22.9)	16 (7.3)	17 (7.8)	3.5
I can present written statement of the problem.	33 (15.1)	71 (32.6)	48 (22.0)	19 (8.7)	18 (8.3)	3.4
WEIGHTED MEAN	3.30	ADEQUATE				

Legend : (5) Extensive (4) Very Adequate (3) Adequate (2) Limited (1) Very Limited

Table 5 is a picture of the responses of the subjects in identifying the inquiry and stating the problem. The knowledge of the respondents is **"adequate"** as a whole.

A certain author, described research has found that interest is related to attention, deeper processing, the use of effortful strategies, feelings of enjoyment, and learning. However, some strategies for creating interest in text materials may interfere with the learning of important information. [8]

Table 6
Level of Knowledge of Senior High School Teachers in Identifying the Inquiry and Stating the Problem

Identifying the Inquiry and Stating the Problem	Competence					
	5	4	3	2	1	Weighted Mean
I can design a research project related to daily life.	41 (18.8)	70 (32.1)	56 (25.7)	12 (5.5)	5(2.3)	3.7
I can write a research title.	54 (24.8)	59 (27.1)	57 (26.1)	9 (4.1)	4(1.8)	3.8
I can describe the justifications/reasons for conducting the research.	43 (19.7)	78 (35.8)	48 (22.0)	11 (5.0)	4(1.8)	3.8
I can state research questions.	46 (21.1)	71 (32.6)	52 (23.9)	11 (5.0)	7(3.2)	3.7
I can indicate scope and delimitation of research.	46 (21.1)	83 (38.1)	43 (19.7)	9 (4.1)	6(2.8)	3.8
I can cite benefits and beneficiaries of research.	50 (22.9)	74 (33.9)	50 (22.9)	9 (4.1)	3(1.4)	3.9
I can present written statement of the problem.	47 (21.6)	73 (33.5)	53 (24.3)	8 (3.7)	6(2.8)	3.8
WEIGHTED MEAN	3.80		COMPETENT			

Legend : (5)Highly Competent (4) Competent (3) Moderately Competent (2) Fairly Competent (1) Not Competent

Table 6 is a picture of the responses of the subjects in identifying the inquiry and stating the problem. The respondents are **"competent"** as a whole.

An author expressed that teachers need learning of teaching method and preparing to create themselves as proficient teachers with certain of their own capabilities and with a confidence on the potential of the students.[9]

Table 7
Level of Knowledge of Senior High School Teachers in Learning from Others and Reviewing the Literature

Learning from Others and Reviewing the Literature	Knowledge					
	5	4	3	2	1	Weighted Mean
I can select relevant literature.	43 (19.7)	61 (28.0)	49 (22.5)	16 (7.3)	16 (7.3)	3.5
I can cite related literature using standard style (APA, MLA or Chicago Manual of Style).	36 (16.5)	62 (28.4)	55 (25.2)	16 (7.3)	17 (7.8)	3.5
I can synthesize information from relevant literature.	37 (17.0)	55 (25.2)	54 (24.8)	22 (10.1)	17 (7.8)	3.4
I can write coherent review of literature.	36 (16.5)	55 (25.2)	62 (28.4)	16 (7.3)	17 (7.8)	3.4
I can follow ethical standards in writing related literature.	37 (17.0)	52 (23.9)	59 (27.1)	14 (6.4)	22 (10.1)	3.4

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I can illustrate and explain conceptual framework.	34 (15.6)	54 (24.8)	60 (27.5)	9 (4.1)	24 (11.0)	3.4
I can define terms used in study.	29 (13.3)	66 (30.3)	53 (24.3)	12 (5.5)	20 (9.2)	3.4
I can list research hypotheses (if appropriate).	29 (13.3)	58 (26.6)	58 (26.6)	12 (5.5)	22 (10.1)	3.3
I can present written review of related literature and conceptual framework.	28 (12.8)	63 (28.9)	54 (24.8)	16 (7.3)	21 (9.6)	3.3
WEIGHTED MEAN	3.40		VERY ADEQUATE			

Legend : (5) Extensive (4) Very Adequate (3) Adequate (2) Limited (1) Very Limited

Table 7 is a picture of the knowledge of the senior high school teachers in terms of learning from others and reviewing the literature. For this category, it has an over-all interpretation of **"very adequate".**

According to an article from Library Study Smart of Western Sydney University published in July 2017, it is very important to present a coherent argument in response to a stimulus or question, and to persuade the reader that your position is credible (i.e. believable and reasonable) and at the same time demonstrate your ability to research the topic, develop your position, and then convince the reader by presenting a reasoned response supported by evidence from the research you have done.[10]

Table 8
Level of Competence of Senior High School Teachers in Learning from Others and Reviewing the Literature

Learning from Others and Reviewing the Literature	Competence					
	5	4	3	2	1	Weighted Mean
I can select relevant literature.	4 (1.8)	5 (2.3)	55 (25.2)	58 (26.6)	65 (29.8)	2.1
I can cite related literature using standard style (APA, MLA or Chicago Manual of Style).	47 (21.6)	67 (30.7)	59 (27.1)	8 (3.7)	5 (2.3)	3.8
I can synthesize information from relevant literature.	45 (20.6)	70 (32.1)	60 (27.5)	5(2.3)	4 (1.8)	3.8
I can write coherent review of literature.	48 (22.0)	67(30.7)	62 (28.4)	7(3.2)	4 (1.8)	3.8
I can follow ethical standards in writing related literature.	45 (20.6)	71 (32.6)	50 (22.9)	13 (6.0)	6 (2.8)	3.7
I can illustrate and explain conceptual framework.	58 (26.6)	65 (29.8)	48 (22.0)	8 (3.7)	3(1.4)	3.9
I can define terms used in study.	47 (21.6)	76 (34.9)	51 (23.4)	5 (2.3)	2 (0.9)	3.9
I can list research hypotheses (if appropriate).	44 (20.2)	70 (32.1)	55 (25.2)	8 (3.7)	4 (1.8)	3.8
I can present written review of related literature and conceptual framework.	44 (20.2)	77 (35.3)	53 (24.3)	7 (3.2)	2 (9)	3.8
WEIGHTED MEAN	3.60		COMPETENT			

Legend : (5)Highly Competent (4) Competent (3) Moderately Competent (2) Fairly Competent (1) Not Competent

Table 8 is a presentation of the competence of the senior high school teachers in terms of learning from others and reviewing the literature. Over- all implication as to this matter is **"very adequate**".

A literature cited, a qualitative data are collected across a range of social science disciplines, with varying techniques or emphasis, but typically aiming to capture lived experiences of the social world and the meanings people give these experiences from their own perspectives. Often a diversity of methods and tools rather than a single one are encompassed. The types of data collected vary with the aims of the study and the nature of the sample. Samples are most often small, but may rise to 500 or more informants. Such data include interviews—whether in-depth or unstructured, individual or group discussion—fieldwork diaries and observation notes, structured and unstructured diaries, personal documents, or photographs. Thus any one study may yield a wide range of data types for archiving. Moreover, most of these types of data may be created in a variety of formats: digital, paper (typed and hand-written), audio, video and photographic.[11]

Table 9
Level of Competence of Senior High School Teachers in Understanding Data and Ways to Systematically Collect Data

Understanding Data and Ways to Systematically Collect Data	Competence					
	5	4	3	2	1	Weighted Mean
I can choose appropriate quantitative research design.	45 (20.6)	69 (31.7)	56 (25.7)	8(3.7)	2 (0.9)	3.8
I can describe sampling procedure and the sample.	37 (17.0)	75 (34.4)	56 (25.7)	7 (3.2)	2 (0.9)	3.8
I can construct an instrument and establishes its validity and reliability.	48 (22.0)	59 (27.1)	63 (28.9)	9 (4.1)	1 (0.5)	3.8
I can describe intervention (if applicable).	48 (22.0)	66 (30.3)	55 (25.2)	6 (2.8)	4 (1.8)	3.8
I can plan data collection procedure.	48 (22.0)	67 (30.7)	53 (24.3)	11 (5.0)	1 (5.0)	3.8
I can plan data analysis using statistics and hypothesis testing (if appropriate).	45 (20.6)	63 (28.9)	58 (26.6)	7 (3.2)	2 (9.0)	3.8
I can present written research methodology.	45 (20.6)	66 (30.3)	59 (27.1)	8 (3.7)	1 (5.0)	3.8
I can implement design principles to produce creative artwork.	47 (21.6)	59 (27.1)	62 (28.4)	12 (5.5)	1 (5.0)	3.8
WEIGHTED MEAN	3.80		COMPETENT			

Legend : (5)Highly Competent (4) Competent (3) Moderately Competent (2) Fairly Competent (1) Not Competent

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Table 9 reflects the level of competence of senior high teachers in understanding data and ways to systematically collect data. Over- all implication as to this matter is **"competent**".

A journal mentioned that domestic and foreign scholars have made a lot of theoretical and empirical researches on teachers' competency. The quality of teachers has become an important breakthrough in the research of teachers' competence and the significance is widely accepted. Generally speaking, domestic research mostly focuses on the empirical research on teachers' competence based on the referencing, combing and analysis of the foreign related theories, which has a certain positive role in the development of teachers' competence in China. However, it cannot be denied that the research has a more import idea which can be seen from the competency theory, practice and research methods; the object of study is more general, lack of subject classification; the research field more concentrated in the higher education while the research on basic education has little.[12]

Table 10
Level of Knowledge of Senior High School Teachers in Finding Answers through Data Collection

Finding Answers through Data Collection	**Knowledge**					
	5	**4**	**3**	**2**	**1**	**Weighted Mean**
I can collect data using appropriate instruments.	39 (17.9)	52 (23.9)	51 (23.4)	16 (7.3)	19 (8.7)	3.5
I can collect data through observation and interviews.	37 (17.0)	58 (26.6)	52 (23.9)	15 (6.9)	16 (7.3)	3.5
WEIGHTED MEAN	**3.5**		**VERY ADEQUATE**			

Legend : (5) Extensive (4) Very Adequate (3) Adequate (2) Limited (1) Very Limited

Table 10 is the level of knowledge of the respondents in terms of finding answers through data collection. Fifty- two (52) or 23.9% have **"very adequate"** knowledge in collecting data using appropriate instruments; fifty – eight (58) or 26.6% have "very adequate" knowledge in collecting data through observation and interviews. To summarize this category, it was found out that there is a "**very adequate"** knowledge in finding answers through data collection.

Surveys are fixed sets of questions that can be administered by paper and pencil, as a Web form, or by an interviewer who follows a strict script. Interviews are discussions, usually one-on-one between an interviewer and an individual, meant to gather information on a specific set of topics. Interviews can be conducted in person or over the phone. Interviews differ from surveys by the level of structure placed on the interaction. Focus groups are dynamic group discussions used to collect information. Observation is data collection in which the researcher does not participate in the interactions. Examples of this include observing operating room procedures or Supreme Court proceedings. However, it should be noted that the researcher's very presence may have some influence on the participants and exchanges. For example, while the researcher is unlikely to influence a surgeon or a Supreme Court justice, it is not difficult to imagine the researcher's presence influencing other participants, such as small children at play. Extraction is the collection of data from documents, records, or other archival sources. This generally includes using an abstraction process to cull the information desired from the source. Examples of this might be collecting information on dates of diagnoses from medical records or decision dates from legal records.[13]

Table 11
Level of Competence of Senior High School Teachers in Finding Answers through Data Collection

Finding Answers through Data Collection	Competence					
	5	4	3	2	1	Weighted Mean
I can collect data using appropriate instruments.	52 (23.9)	61 (28.0)	57 (26.1)	9 (4.1)	1 (5.0)	3.9
I can collect data through observation and interviews.	9 (4.1)	60 (27.5)	60 (27.5)	9 (4.1)	1 (5.0)	3.9
WEIGHTED MEAN	3.9		COMPETENT			

Legend : (5)Highly Competent (4) Competent (3) Moderately Competent (2) Fairly Competent (1) Not Competent

Table 11 is the level of knowledge of the respondents in terms of finding answers through data collection. To summarize this category, it was found out that in finding answers through data collection, the respondents are **"competent".**

There are various procedures of collecting data: tests, questionnaires, interviews, classroom observations, diaries, journals, etc. Quite often, quantitative designs use tests and closed-ended questionnaires in order to gather, analyze and interpret the data. However, the qualitative methods mostly make use of interviews, diaries, journals, classroom observations and open-ended questionnaires to obtain, analyze and interpret the data. On the other hand, mixed method approaches usually use closed-ended questionnaires (numerical data), interviews and classroom observations (text data) to collect information. In order to triangulate the data, the

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researchers can obtain information through different procedures to heighten the dependability and trustworthiness of the dada and their interpretation. This article only investigates the virtues and weaknesses of the questionnaires, interviews and classroom observations because of their importance and widespread use. Generally, before and after collecting the data, the researchers need to consider the validity and reliability of their data. Therefore, the various ways of magnifying the validity and reliability of the data will be described in detail. In the end, the researchers need to put their study together and report it. [16]

Table 12
Level of Knowledge of Senior High School Teachers in Analyzing the Meaning of the Data and Drawing Conclusions

Analyzing the Meaning of the Data and Drawing Conclusions	Knowledge					
	5	4	3	2	1	Weighted Mean
I can infer and explain patterns and themes from data.	35 (16.1)	62 (28.4)	52 (23.9)	14 (6.4)	18 (8.3)	3.4
I can relate the findings with pertinent literature.	30 (13.8)	65 (29.8)	52 (23.9)	14 (6.4)	18 (8.3)	3.4
WEIGHTED MEAN	3.4		VERY ADEQUATE			

Legend : (5) Extensive (4) Very Adequate (3) Adequate (2) Limited (1) Very Limited

Table 12 presents the level of knowledge of senior high school teachers in analyzing the meaning of the data and drawing of conclusions. Over – all impression is **"very adequate".**

The goal of a thematic analysis is to identify themes, i.e. patterns in the data that are important or interesting, and use these themes to address the research or say something about an issue. This is much more than simply summarizing the data; a good thematic analysis interprets and makes sense of it. A common pitfall is to use the main interview questions as the themes Typically, this reflects the fact that the data have been summarized and organized, rather than analyzed.[15]

Table 13
Level of Competence of Senior High School Teachers in Analyzing the Meaning of the Data and Drawing Conclusions

Analyzing the Meaning of the Data and Drawing Conclusions	Competence					
	5	4	3	2	1	Weighted Mean
I can infer and explain patterns and themes from data.	50 (22.9)	70 (32.1)	47 (21.6)	10 (4.6)	3 (1.4)	3.9
I can relate the findings with pertinent literature.	49 (22.5)	61 (28.0)	56 (25.7)	9 (4.1)	2 (9.0)	3.8
WEIGHTED MEAN	3.8		COMPETENT			

Legend : (5)Highly Competent (4) Competent (3) Moderately Competent (2) Fairly Competent (1) Not Competent

Table 13 presents the level of competence of senior high school teachers in analyzing the meaning of the data and drawing of conclusions. Over – all impression is **"competent".**

The purpose of most experiments is to prove or disprove a hypothesis. Scientists do this by collecting data, analyzing it and drawing a conclusion. The whole process, from forming a hypothesis to announcing conclusions, is called the scientific method. Scientists have ways to organize their data that make it easier for them to understand the results. Sometimes they use graphs, and sometimes they use mean, median and mode. Scientists can then check their data against their original hypothesis to find out whether or not they were right. [16]

Table 14
Level of Knowledge of Senior High School Teachers in Reporting and Sharing the Findings

Reporting and Sharing the Findings	Knowledge					
	5	4	3	2	1	Weighted Mean
I can draw conclusions from patterns and themes.	39 (17.9)	48 (22.0)	53 (24.3)	21 (9.6)	16 (7.3)	3.4
I can formulate recommendations based on conclusions	36 (16.5)	59 (27.1)	49 (22.5)	21 (9.6)	13 (6.0)	3.5
L can list references.	31 (14.2)	67 (30.7)	46 (21.1)	21 (9.6)	15 (6.9)	3.4
I can present a written research report.	32 (14.7)	60 (27.5)	48 (22.0)	22 (10.1)	17 (7.8)	3.4
WEIGHTED MEAN	3.40		VERY ADEQUATE			

Legend : (5) Extensive (4) Very Adequate (3) Adequate (2) Limited (1) Very Limited

Table 14 shows the level of knowledge of the respondents in terms of reporting and sharing the findings, as a whole, there is "very adequate" knowledge in this category.

Publishing as part of research projects is often taken for granted by researchers, teacher educators and advocates or classroom research methodologies. This article has described the way the writing process has been guided in TPDs, the achievements of the experience, the criteria borne in mind for task completion, the problems teacher researchers faced, and the tools they used to

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overcome difficulties. Nonetheless, there are some implications we may need to consider.

Writing and publishing is seen as an essential and central process in classroom research projects. Research is valuable if it is disseminated and this can be done through informal or formal presentations. The former can take place at school or in teachers' conversations, whereas the latter is possible through participation in varied events such as seminars, workshops or conferences. Another alternative is the publication of research processes and findings in newsletters, conferences' proceedings, journals or books [17][20].

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Summary of the Results of the Research Knowledge and Competence of Senior High School Teachers

KNOWLEDGE	LEARNING COMPETENCIES	COMPETENCE
Very Adequate	Nature of Inquiry and Research	Competent
Adequate	Qualitative Research and Its Importance in Daily Life	Competent
Adequate	Identifying the Inquiry and Stating the Problem	Competent
Very Adequate	Learning from Others and Reviewing the Literature	Competent
Very Adequate	Understanding Data and Ways to Systematically Collect Data	Competent
Very Adequate	Finding Answers through Data Collection	Competent
KNOWLEDGE	LEARNING COMPETENCIES	COMPETENCE
Very Adequate	Analyzing the Meaning of the Data and Drawing Conclusions	Competent
Very Adequate	Reporting and Sharing the Findings	Competent

Table 15
Degree of Seriousness of the Problems Encountered by Teachers in teaching Research

PROBLEMS ENCOUNTERED BY TEACHERS IN TEACHING RESEARCH	Degree of Seriousness					Sum	Rank
	5	4	3	2	1		
1. Lack of teamwork, empathy, and support between students.	64 (29.4)	83 (38.1)	46 (21.1)	9 (4.1)	6 (2.8)	814	2
2. Excessive paper works for data collection.	54 (24.8)	94 (43.1)	44 (20.2)	9 (4.1)	4 (1.8)	800	4
3. Time management	70 (32.1)	86 (39.4)	40 (18.3)	5 (2.3)	6 (2.8)	830	1
4. Lack of available resources.	55 (25.2)	89 (40.8)	43 (19.7)	15 (6.9)	6 (2.8)	796	5
5. Inadequate access to partner agencies.	50 (22.9)	89 (40.8)	51 (23.4)	7 (3.2)	7 (3.2)	780	7
6. Lack of interest of students in research.	61 (28.0)	74 (33.9)	39 (17.9)	24 (11.0)	7 (3.2)	773	8
7. Lack of background in research by the students.	53 (24.3)	77 (35.3)	45 (20.6)	23 (10.6)	6 (2.8)	760	13
8. Lack of classroom- based intervention for students in research.	55 (25.2)	81 (37.2)	51 (23.4)	14 (6.4)	5 (2.3)	785	6
9. Research subject is not their forte.	56 (25.7)	81 (37.2)	40 (18.3)	21 (9.6)	7 (3.2)	773	8
10. Research is not the only subject of the students.	60 (27.5)	78 (35.8)	38 (17.4)	18 (8.3)	9 (4.1)	771	11
11. Late exposure of the students in research subjects.	53 (24.3)	81 (37.2)	49 (22.5)	15 (6.9)	6 (2.8)	772	10
12. Lack of proper funding for research experiments.	64 (29.4)	83 (38.1)	43 (19.7)	8 (3.7)	6 (2.8)	803	3
13. Lack of parental support of the student-researchers.	53 (24.3)	70 (32.1)	53 (24.3)	19 (8.7)	10 (4.6)	752	15
14. Lack of research- based initiated programs.	58 (26.6)	75 (34.4)	52 (23.9)	8 (3.7)	9 (4.1)	771	11
15. Lack of research- based center in school.			2 (0.9)	2 (0.9)	3 (1.4)	757	14

Legend: (5) Very serious (4) Serious (3) Moderately Serious (2) Fairly serious (1) Not Serious

Table 15 presents of the degree of seriousness of the problems encountered by the teachers in teaching research.

Eighty -six(86) or 39.4% who said that lack of time management is " serious", which is rank 1, among the problems encountered by the senior high school teachers, time management came out as the serious problem among the respondents (n=86 or 39.20%). The result implies that teachers are not only concentrated in teaching and these include clerical work which are supposed to be done by the ADAS. There are more activities done outside teaching.

Table 16
STRATEGIES IN RESPONSE TO THE PROBLEMS ENCOUNTERED BY THE TEACHER IN TEACHING RESEARCH

STRATEGIES IN RESPONSE TO THE PROBLEMS ENCOUNTERED BY THE TEACHERS IN TEACHING RESEARCH	5	4	3	2	1	Sum	Rank
1. Cooperative learning.	79 (36.2)	84 (38.5)	31 (14.2)	5 (2.3)	2 (0.9)	836	1
2. Setting goal and objectives.	72 (33.0)	95 (43.6)	23 (10.6)	8 (3.7)	3 (1.4)	828	2
3. Setting the important priorities.	67 (30.7)	93 (42.7)	29 (13.3)	10 (4.6)	2 (0.9)	816	7

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4. Provide opportunities for student practice.	69 (31.7)	88 (40.4)	32 (14.7)	9 (4.1)	2 (0.9)	813	9
5. Developing high expectations for each student.	70 (32.1)	82 (37.6)	33 (15.1)	12 (5.5)	4 (1.8)	805	10
6. Reinforcing Effort/Providing Recognition	70 (32.1)	88 (40.4)	33 (15.1)	4 (1.8)	5 (2.3)	814	8
7. Reciprocal Teaching	68 (31.2)	90 (41.3)	33 (15.1)	7 (3.2)	4 (1.8)	817	6
8. Provide rewards based on a specific performance.	69 (31.7)	83 (38.1)	41 (18.8)	8 (3.7)	2 (0.9)	818	5
9. Provide learning feedback that is detailed and specific.	69 (31.7)	96 (44.0)	27 (12.4)	7 (3.2)	2 (0.9)	826	3
10. Provide students with the organizational structure of the course.	71 (32.6)	87 (39.9)	36 (16.5)	4 (1.8)	4 (1.8)	823	4

Legend: (5) Very effective (4) Effective (3) Moderately Serious (2) Fairly Serious (1) Not Effective

Table 16 is all about the strategies in response to the problems encountered by the teachers in teaching research. Cooperative leaning is "effective" to eighty – four (84) or 38.5% of the respondents.

According to a conducted research , in the modern world, time is seen as an indefinitely divisible and usable commodity. It helps to infuse the concept of time through the institution. All the material and human resources possessed by organizations can be enhanced in the course of time or be transformed as time goes on; yet the only asset that cannot be changed or purchased or stored is time itself. The secret to achieving success in life is effectively managing this resource that everyone possesses equally and paying sufficient emphasis to planning [18]. Though effective and efficient use of time varies with respect to the tasks performed, the further increase in the level of knowledge and skills expected from modern employees has further increased the necessity of time planning. The road to success in social life passes through effective and efficient working which is only possible via time management. The competitive environment we live in today encourages people from as early as their elementary education to plan and manage time effectively. The high performance required by competitive conditions forces organizations and directors to use time effectively and stipulates the search to control time [19].

CONCLUSION AND RECOMMENDATION

This study revealed that there is significant relationship between in the research knowledge of the Senior High Teachers and their profile variables in terms of sex in all the learning competencies in research. There is no significant relationship between in the research knowledge of the Senior High Teachers and their profile variables in terms of field of specialization. There is a significant relationship between in the research knowledge of the Senior High Teachers and their profile variables in terms of number of researches. There is significant relationship between the research competence of the Senior High Teachers and their profile variables in terms of age, highest educational attainment, and length of service along with understanding data and ways to systematically collect data, finding answers through data collection, analyzing the meaning of the data and drawing conclusions and reporting and sharing the findings.

It is recommended that a parallel study should be done to private school teachers who are teaching research. Based from the results of this study, it is also recommended for teachers to discover other strategies to response to the problems encountered by the teachers in teaching the research subject. A training program could be proposed to enhance more the research competence of senior high school teachers.

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