**Perceived Research Competence of Senior High School Research Teachers in the Division of Northern Samar**

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**ABSTRACT**

The Philippines finds research crucial in preparing future generations to be globally competitive. The Department of Education (DepEd) has conducted various activities to strengthen the research culture of the teachers even before this educational reform. This study assessed the research competence of Senior High School (SHS) research teachers in the Division of Northern Samar, Philippines. Utilizing the descriptive design, quantitative data were gathered. This study used a survey questionnaire on the knowledge of research methodologies and ability to teach research skills of the respondents. A total of 116 research teachers participated in the survey. Research competence was measured on a five-point Likert scale. To assess the research competence of the respondents, the study utilised weighted means as the main statistical tool. Findings revealed that generally, teachers perceived themselves as competent in research. This implies that the teachers have sufficient knowledge and expertise in teaching research to Senior High School students. Though the teachers expressed strong competence in this field, there are concerns about the theoretical and conceptual frameworks, data analysis, theory generation, use of technology in research, and use of anecdotal feedback in addressing students’ learning difficulties. There are still research competencies which need attention. Targeted training is essential for building sustained research competence among SHS research teachers. Hence, institutional efforts for needs-based development programs, policy planning and reforms are significant towards enhanced research competence.

*Keywords: research competence, senior high school, teachers, research teachers*

**1. INTRODUCTION**

In higher education institutions, research is one of the essential functions, along with instruction and community extension. Research in higher education across disciplines ensures the continued growth and development of the entire higher education sector (Pedrajas & Bito-onon, 2022). Apparently, research has significantly contributed to the economic development of countries like China and European countries. In the academe, likewise, research is vital to its development and status (Quitoras & Abuso, 2021). The Philippines finds research crucial in preparing future generations to be globally competitive. This significance is highlighted in the Republic Act No. 10533, or the Enhanced Basic Education Act of 2013, of the Department of Education, which mandates the enhancement of the Philippine Educational System by bringing out the 12-year (K to 12) program. The additional two years are a specialized upper-secondary education with a core curriculum and tracks where research subjects are offered thrice to enhance the critical thinking and problem-solving abilities of 21st-century learners, thus requiring teachers to transfer and facilitate the quality of learning the department envisions.

The Department of Education (DepEd) has conducted various activities to strengthen the research culture of the teachers even before this educational reform. These include research as part of educational culture (Manila & Dayanan, 2022) is highlighted with low research involvement and productivity, recommending research training (Magnaye, 2022). Several studies found that Senior High School teachers are in need of further orientation in handling research subjects since most of them still lack knowledge in the crafting of a research study following its major parts and subparts (Salde & Mamaoag, 2021; Abinan, 2021; Ducyao,2023). Studies further show moderate research competence across various regions, with gaps in teachers' ability to handle advanced research tasks such as data organization and statistical analysis (Anub, 2020; Morales et al., 2016). Engagement in research activities is also low, with many teachers only moderately involved or not participating at all (Lagrio et al., 2022; Magnaye, 2022). Studies have highlighted that many teachers do not have sufficient research training, which affects their ability to develop essential research skills or effectively teach research to students (Almonicar, 2022; Arrieta & Marasigan, 2021). This is further compounded by technical knowledge gaps, where teachers struggle to differentiate between types of research, such as action research versus basic research (Gosadan & Cagaanan, 2018; Borreo, 2023). As a result, teachers require continuous supervision and mentoring to refine their research competencies. Additionally, time management poses a significant challenge, as many teachers face overwhelming workloads and teaching schedules, leaving little time for research activities (Mejia & Salcedo, 2020; Ulla, 2018). The burden of co-curricular duties, administrative tasks, and personal responsibilities further diminishes the time available for engaging in research (Gosadan & Cagaanan, 2018; Lagrio et al., 2022). Insufficient resources also act as a major barrier to research engagement. A lack of research funds and access to essential research resources, including materials, facilities, and financial support, hampers teachers' ability to pursue and complete research projects (Suson et al., 2020). Furthermore, the absence of peer support and expert guidance, coupled with limited mentoring opportunities, leaves teachers without the necessary assistance to develop their research skills (Suson et al., 2020). Knowing that research is crucial for student’s readiness towards higher research endeavors, considering the teacher-factor is one of the essential elements in maximizing the transfer and facilitation of learning. This high-level course necessitates highly qualified teachers who are proficient in both teaching and research methods. This situation is apparent as local studies reveal that senior high school students find research with utmost relevance and usefulness to their everyday lives, however, many of them still express concern about anxiety and difficulty with the subject (Serrano, 2022).

The Department of Education recorded only two (2) completed projects out of the 35 target beneficiaries/grantees in Region VIII (DepEd, 2023). This ranks among the lowest in all other regions in the country. Similar to other schools divisions, encounters with SHS research teachers in the province raised concerns about substantial challenges in developing research competence, which is crucial for effectively guiding students through the research process. Lack of formal training and research background exclusive to Practical Research teachers, limited hands-on experience since most of the teachers handling the subjects are novices in the specialization, overwhelming workloads, inadequate access to resources, minimal institutional support, and negative attitudes or low motivation toward research are just some. Additionally, resource constraints and insufficient mentoring or professional development opportunities also further hinder teachers’ ability to improve their research skills. These issues negatively impact both SHS research teachers and students, resulting in compromised research instruction and quality of student outputs that limit students’ preparedness for higher education and real-world problem solving.

With these, the researcher finds significance in delving into the research competence of the Senior High School research teachers. Through this study, identified priority needs will be addressed to make necessary adjustments, interventions, or programs, that will enhance the productivity of teachers in making and conducting research as part of their growth and development. The outcome of the study will also lead to improved students’ skills in crafting research as research teachers transfer their improved knowledge and competence from research trainings. Further, this will serve as a reference for the Schools Division Research Unit to provide realistic and timely support through the conduct of division-based trainings for research teachers.

**2. METHODOLOGY**

**2.1 Locale of the Study**

This study was conducted within the province of Northern Samar, one of the provinces in Eastern Visayas Region, bordered on the east by the Pacific Ocean; on the north by the San Bernardino Strait; on the west by the Samar Sea; and on the South by the provinces of Samar and Eastern Samar.

This study specifically included all the Senior High School Implementers of the Balicuatro, Central, and Pacific Areas of the province. These include national high schools, integrated schools and stand-alone schools offering programs such as Academic Track and Technical, Vocational, and Livelihood Track specializing in various strands whose teachers are handling research subjects as offered thrice in the curriculum.

**2.2 Research Design**

This study used a descriptive research design. The descriptive research identifies and outlines existing conditions, behaviors, or perceptions of the target group (Calmorin & Calmorin, 2007). In this study, the descriptive phase documented the level of research competence in terms of both knowledge of research and teaching ability of the Senior High School teachers.

**2.3 Variables**

This study involved research competence as the main variable. Research competence was measured in terms of competence in writing the introductory parts of the research, writing the methodology, writing the results, conclusions and recommendations, technical aspects and ICT applications, and the ability to teach research writing skills.

**2.4 Population and Sampling**

The population of this study are the 133 Senior High School research teachers in the Division of Northern Samar as the respondents of this study. A complete enumeration of the population was employed.

**2.5 Respondents**

Out of the 133 senior high school research teachers, only 116 teachers or 87.22% of the target population actively participated in the survey.

**2.6 Instrument**

This study used a survey questionnaire on competence of senior high school teachers in research in terms of knowledge of research methodologies and ability to teach research skills. However, the findings are borne out of self-appraisal of teachers and did not offer means of verification from other parties. The questionnaire is adapted from Bucar (2022). The instrument includes subparts: 11 items for writing the introduction, 12 items for writing the methodology, three (3) statements for writing the conclusions and recommendations, seven (7) items for writing the results and discussions, three (3) items for writing the references, and 5 items in the ICT Applications in research writing. The ability to teach research skills was determined through a researcher-made survey questionnaire where statements were constructed from the literature presented by Matos et al. (2023). This part includes 15 statements on the teaching strategies used by SHS research teachers in teaching research methodologies skills.

**2.7 Validation**

The tool was subjected to content validation congruent to the learning competencies of Practical Research based on the K-12 Curriculum Guide. It also underwent reliability analysis which generated a Cronbach's Alpha of 0.953, which means highly reliable. The instrument was submitted for content validation by a group of three (3) validators who are research experts affiliated in the University of Eastern Philippines–Main Campus. The validation consisted of modifications and improvements. Furthermore, 10 statements per indicator were made to ensure consistency in the number of items, enhancing its structural balance and ease of response for the respondents.

**2.8 Scoring and Interpretation of Data**

Research competence was measured on a five-point Likert scale, with weighted means classified into Very Much Competent (4.20–5.00), Much Competent (3.40–4.19), Competent (2.60–3.39), Less Competent (1.80–2.59), and Least Competent (1.00–1.79).

**2.9 Data Gathering and Procedure**

Prior to data collection, the researcher obtained the necessary permissions to conduct the study. Upon securing these permits, the researcher proceeded with the distribution of survey questionnaires to the identified respondents. Ethical considerations were assured in the data-gathering procedure. The retrieval of the completed questionnaires took approximately two (2) weeks.

**2.10 Statistical Analysis of Data**

To assess the research competence of the respondents, the study utilized weighted means as the main statistical tool.

**3. RESULTS AND DISCUSSION**

**3.1 Knowledge of Research Methodologies**

*3.1.1 Level of Research Competence of the Respondents in terms of Writing the introductory part*

On Table 1, the data showed that the research competence of research teachers in writing the introductory part of a research paper is rated as "Much Competent," with a grand mean of 4.11. Specifically, the highest-rated statement, “cite sources using standard style (APA, MLA, or Chicago Manual of Style) appropriate to one’s area of discipline” with a mean of 4.27, indicates that teachers feel very competent in applying proper citation formats. This suggests a solid understanding of academic conventions and ethical scholarship, which is fundamental to research credibility and integrity.

A cluster of competencies falls under the “Much Competent” category, with a mean of scores ranging from 4.04 to 4.19. These include formulating research problems with a mean of 4.19 and following ethical standards in writing the related literature with a mean of 4.18. These two (2) areas highlight a high level of competence in framing a study's focus and maintaining scholarly responsibility. Similarly, teachers show strong skills in synthesizing relevant literature with 4.17; justifying the rationale of the research with a mean of 4.16; establishing relevance and novelty of the study with a mean of 4.09.

Further, while still within the “Much Competent” range, slightly lower scores were observed in areas that typically require higher-order thinking and integration of abstract concepts such as establishing a literature gap through situational analysis with a mean of 4.08; writing introductions in the inverted pyramid format mean 4.04; formulating hypotheses with a mean of 3.98; and, developing theoretical or conceptual frameworks with a mean of 3.97. These areas often pose greater cognitive demands, involving synthesis across multiple domains, and may reflect a need for further training or support, particularly in guiding students in more rigorous or theory-driven research.

This finding paints a positive picture of research teachers’ competence, especially in the foundational elements of research writing. The consistently high scores suggest that teachers possess the core skills necessary to effectively support student-researchers and contribute meaningfully to scholarly work. This affirms the study of Anub (2020) that generally, teachers are competent in writing research introductory parts.

However, the slightly lower ratings in hypothesis and theoretical/conceptual framework development. This supports claim of Mejia and Salcedo (2020) and Borreo (2023) that often teachers are struggling with aspects like research introductions where conceptual and theoretical framework are formulated.

**Table 1 Competence of the respondents in writing the Introductory Part of Research**

|  |  |  |
| --- | --- | --- |
| **Indicators** | **Mean** | **Interpretation** |
| cite sources using standard style (APA, MLA or Chicago Manual of Style) appropriate to one's area of discipline | 4.27 | Very much competent |
| formulate clearly the statement of the research problem | 4.19 | Much Competent |
| follow ethical standards in writing related literature | 4.18 | Much Competent |
| synthesize the information from the relevant literature | 4.17 | Much Competent |
| state the justification/compelling reasons for conducting the research | 4.16 | Much Competent |
| establish the relevance and social value of the study and its differences from other previous studies | 4.09 | Much Competent |
| establish a gap in the literature from the literature reviews that the study intends to find with global, regional and local situational analysis | 4.08 | Much Competent |
| write a clear introduction following the inverted pyramid format (e.g., global to local perspective) | 4.04 | Much Competent |
| formulate hypothesis for quantitative and mixed-method research | 3.98 | Much Competent |
| formulate a comprehensive theoretical/conceptual framework | 3.97 | Much Competent |
| **Mean** | **4.11** | **Much Competent** |

*3.1.2 Level of Research Competence of the Respondents in terms of Writing the Methodology*

Table 2 shows that the respondents’ level of research competence in writing the methodology section of a research study is interpreted as "Much Competent," with a grand mean of 4.09. Specifically, the highest-rated items reflect strong proficiency in core methodological tasks, such as describing the sampling procedure and sample with a mean of 4.29 and choosing appropriate research designs with a mean of 4.26 interpreted as "Very Much Competent". This indicates that the respondents are confident in selecting appropriate research approaches and in articulating how participants are chosen, which are foundational to ensuring methodological rigor.

Similarly, the respondents rated themselves as very much competent in planning data collection and analysis procedures with 4.22, which reflects competence in structuring the overall flow and framework of data management, a critical part of any robust methodology section.

In terms of competence in instrumentation and ethics, a cluster of items falls within the "Much Competent" category, with a mean of scores ranging from 4.03 to 4.17 such as they can collect data using appropriate instruments with a mean of 4.17 and select suitable instruments for measuring variables with a mean of 4.14. This demonstrates a practical ability to implement data collection effectively; the ability to articulate and follow ethical procedures in conducting research with a mean of 4.13 also scored highly, reflecting an awareness of ethical research practices, such as informed consent and data confidentiality, key to maintaining research integrity. Competence in constructing research instruments and establishing their validity and reliability, with 4.03, indicates that teachers can engage in the development and refinement of tools, though this may be an area requiring ongoing practice and support.

However, despite this level of competence, the areas of data analysis and trustworthiness still require further strengthening. The lowest-rated competencies, though still within the "Much Competent" range highlight more complex or technical aspects of research methodology such as applying data entry procedures such as coding and cleaning, with a mean of 3.98; evaluating qualitative research trustworthiness with a mean of 3.86 through methods like triangulation and peer review; and, using statistical and qualitative analysis techniques with a mean of 3.85 including thematic analysis.

The findings mean that research teachers are well-prepared to plan and describe methodological components of research. They are particularly strong in research design, sampling, and overall planning of procedures. Ethical practices and data collection are also well-managed areas of competence. However, the more technical skills involved in data analysis, statistical processing, and assessing qualitative validity—areas essential for ensuring accuracy and credibility in research findings—appear to be relatively less developed and should be a focal point for future professional development efforts.

The findings run parallel to the study of Abella, et al. (2024) that majority of public school teachers in Ilocos Sur manifest very satisfactory competence on Research Methodology. Further, this finding connects to the conclusions of Ancho (2019), Lagrio et al. (2022) and Bucar (2022) in terms of data analysis, statistical processing, and assessing qualitative validity, areas essential for ensuring accuracy and credibility in research findings, as it found out that teachers exhibit varying levels of methodological skills, with a clear need for more training. Abella, et al. (2024) also noted the lowest competence of public school teachers on data analysis.

**Table 2. Competence of the respondents in writing the Methodology**

|  |  |  |
| --- | --- | --- |
| **Indicators** | **Mean** | **Interpretation** |
| describe the sampling procedure and sample | 4.29 | Very much competent |
| choose appropriate research designs (e.g., qualitative, quantitative or mixed methods) | 4.26 | Very much competent |
| plan data collection and analysis procedures | 4.22 | Very much competent |
| collect data using a suitable technique /instrument such as observation, focus group discussion (FGD), interviews, and others | 4.17 | Much competent |
| select an appropriate instrument to measure the variable being studied | 4.14 | Much competent |
| articulate and follow the ethical procedures in conducting research (e.g., asking respondents to sign an informed consent before conducting the study) | 4.13 | Much competent |
| construct an instrument and establish its validity and reliability | 4.03 | Much competent |
| apply data entry (coding and cleaning) | 3.98 | Much competent |
| evaluate qualitative research report's trustworthiness through member check, triangulation, saturation, peer review, external audit, and other valid means | 3.86 | Much competent |
| use statistical techniques in analyzing the data and analyze qualitative data through thematic analysis (open coding, axial coding, and clustering of themes) | 3.85 | Much competent |
| **Mean** | **4.09** | **Much competent** |

*Writing the Results, Conclusions and Recommendations*

Table 3 reveals that the respondents’ level of competence in writing the Results, Conclusions, and Recommendations section of a research paper is interpreted as "Much Competent," with a grand mean of 3.99. This indicates that research teachers possess a strong ability to interpret and communicate research findings effectively. However, while their overall proficiency is evident, there are also areas—particularly in higher-order tasks such as theory generation—where competence, though present, is comparatively lower and could benefit from targeted enhancement.

Specifically, the highest-rated items point to respondents’ competence in relating findings to pertinent literature with a mean of 4.13. This means that are able to situate their results within the broader academic context, which is essential for scholarly rigor and relevance. In addition, they are also competent to present findings clearly and unambiguously with a mean of 4.10. This reflects their capacity to communicate results in a structured and understandable manner, which is critical for reader comprehension and the credibility of the study. They are also competent in drawing conclusions from patterns and themes with a mean of 4.05 and inferring explanations from data with a mean of 4.04. These scores reflect sound analytical skills and an ability to derive meaningful insights from the data, particularly within qualitative research frameworks.

In terms of Competence in Theoretical Validation and Recommendation Development, a mid-tier cluster of competencies, all scoring around 4.01–4.02, reveals that teachers can validate theories from results with a mean of 4.02; present conclusions that reflect objectives and findings with a mean of 4.02; formulate recommendations based on key findings with a mean of 4.02; and synthesize the results effectively with a mean of 4.01. These results demonstrate that teachers are not only able to analyze data but also connect findings back to the research objectives, showing a clear and logical progression from results to conclusions and actionable suggestions. This level of competence is important in reinforcing the coherence of the research narrative and ensuring that outcomes are useful for educational policy and practice.

While the respondents are overall much competent, the lowest-rated competencies, although still within the “Much Competent” range, are related to generating new theories is an area for strengthening particularly Generating a new theory for grounded theory research with a mean of 3.77, and generating a new theory from the results in general with 3.76. These findings suggest that while teachers can effectively interpret and contextualize data, creating entirely new theoretical frameworks is more challenging. This is understandable, as theory generation—especially within grounded theory—requires a deep understanding of abstract thinking, multiple data 0iterations, and advanced methodological expertise. It is a task typically associated with more seasoned researchers or those with extensive theoretical training.

Holistically, the data shows that research teachers have a solid command of the essential skills needed to analyze results, formulate conclusions, and offer practical recommendations. These competencies are foundational to producing complete and impactful research outputs. However, to move towards higher-order research functions such as theory development, additional training in qualitative analysis, advanced theory construction, and exposure to complex research designs may be beneficial.

This finding aligns to the studies of Anub, (2020), Morales et al. (2016) teachers' ability to handle advanced research tasks such as data organization are in moderate levels of competence that needs for further enhancement. This is also parallel to the claim of Ancho (2019) that teachers have generally a fair level of competence in quantitative data analysis.

**Table 3. Competence of the respondents in writing the Results, Conclusions and Recommendations**

|  |  |  |
| --- | --- | --- |
| **Indicators** | **Mean** | **Interpretation** |
| Relate findings with pertinent literature | 4.13 | Much competent |
| Present findings in a clear and unambiguous manner | 4.10 | Much competent |
| Draw conclusion from the patterns and themes (for qualitative research) | 4.05 | Much competent |
| Infer and explain patterns from the data | 4.04 | Much competent |
| Validate the theory from the results | 4.02 | Much competent |
| Present conclusions that reflect the objectives and results (e.g., validation of theory used for generation of a new one) | 4.02 | Much competent |
| Formulate recommendation based on the salient findings | 4.02 | Much competent |
| Synthesize results of the finding | 4.01 | Much competent |
| Generate a new theory for grounded theory research | 3.77 | Much competent |
| Generate a new theory from the results | 3.76 | Much competent |
| **Grand mean** | **3.99** | **Much competent** |

*Technical Aspect of Research Writing including Application of ICT in Research Teaching*

The table 4 shows the respondent’s level of competence on the technical aspect of research writing, including application of ICT in research teaching. A grand mean of 4.16, interpreted as "Much Competent," indicates that, on average, research teachers possess a strong level of competence in performing a range of research-related tasks. This suggests they are well-prepared to conduct and guide research activities, although there may still be areas for enhancement, particularly in technical and specialized skills.

Five (5) out of the 10 competencies were rated as "Very Much Competent", highlighting key strengths in essential academic and communication skills that includes: use office applications (Word, Excel, PowerPoint) with a mean of 4.34; apply communication skills in research data gathering and interviews with a mean of 4.32; apply proper paraphrasing techniques with a mean of 4.28; observe appropriate writing style, grammar, and word selection with a mean of 4.23; organize coherent paragraphs with scholarly citations with a mean of 4.21. These results show the respondents are knowledgeable of foundational and communication-related skills, which are critical for producing well-written manuscripts and conducting ethical and methodologically sound data collection. Their high competence in paraphrasing and academic writing also reflects a strong adherence to scholarly standards. This confirms the findings of Anub (2020) that teachers are highly competent on ICT applications such as the use of office applications and other technical skills.

On areas of moderate to high competence, the remaining five (5) items, all interpreted as "Much Competent," indicate that while teachers are capable in these areas, their skills are not as fully developed as in the aforementioned competencies: perform online research using reputable databases with a mean of 4.16; format a research paper based on institutional conventions; perform online correspondence (e.g., email) with a mean of 4.03, perform online grammar and plagiarism tests with a mean of 4.09, use software for qualitative and quantitative data analysis with a mean of 3.78.

Among these, the lowest mean was in the use of research data analysis software with a mean of 3.78. Although still interpreted as "Much Competent," this lower score suggests a relative weakness in technical competencies related to research software (e.g., SPSS, NVivo, Minitab). This means a need for professional development in advanced data analysis tools, which are increasingly essential in both qualitative and quantitative research. This finding affirms Morales et al. (2016) that teachers' ability to handle advanced research tasks such as data organization and statistical analysis was at a moderate level of competence that requires further enhancement.

**Table 4. Competence of respondents in the Technical Aspect of Research Writing including Application of ICT in Research Teaching**

|  |  |  |
| --- | --- | --- |
| **Indicators** | **Mean** | **Interpretation** |
| Use office applications (word, excel, powerpoint) in preparing the manuscript | 4.34 | Very much competent |
| Apply communication skills in the conduct of research data gathering, interviews and others | 4.32 | Very much competent |
| Apply proper paraphrasing techniques for borrowed ideas | 4.28 | Very much competent |
| Observe appropriate writing style, grammar, and word selection | 4.23 | Very much competent |
| Organize coherent paragraphs with scholarly citations | 4.21 | Very much competent |
| Perform online research using search engines (e.g., google scholar) and reputable electronic databases (e.g., proquest, emerald insight, psych info) | 4.16 | Much competent |
| Format a research paper based on institutional convention (e.g. Pagination, numbering, spacing, indention, and table and figures | 4.15 | Much competent |
| Perform online grammar and plagiarism test (e.g., grammarly, plagscan, turnitin, etc.) | 4.09 | Much competent |
| Perform online correspondence (e.g. Email) | 4.03 | Much competent |
| Use software for qualitative (e.g., nvivo) and quantitative research (e.g., spss, minitab excel) data analysis | 3.78 | Much competent |
| **Grand Mean** | **4.16** | **Much competent** |

**3.2 Ability to teach Research Skills**

Based on the data presented in Table 5, the research competence of the respondents in terms of teaching research can be described as generally “much competent,” with a grand mean of 4.05. This indicates that teachers exhibit a high level of proficiency in delivering research instruction, utilizing a variety of strategies that enhance research understanding, skill development, and student engagement. Such performance reflects a strong foundation in both the theoretical and practical dimensions of research pedagogy.

The highest-rated competency was the facilitation of hands-on exercises in group activities such as article reviews and abstract readings, with a mean of 4.28, interpreted as “very much competent.” This demonstrates the teachers' commitment to active, experiential learning, which is essential for nurturing critical thinking and analytical skills. Closely following is the ability to organize research defenses with a mean of 4.22, showcasing the teachers’ competence in guiding students through the culmination of their research projects, including the articulation and defense of their findings.

Other competencies fall within the “much competent” category, with a mean of scores ranging from 3.87 to 4.12. These include the use of question-led approaches with a mean of 4.12 and engagement in field and desk research with a mean of 4.06, both of which reflect efforts to instill curiosity, inquiry, and practical experience. The use of customized online resources and exposure to ongoing research projects with a mean of 4.03 each indicates that teachers are incorporating technological tools and real-world contexts into their teaching, aligning with current educational trends. A balance between traditional strategies with a mean of 4.02 and open educational contexts with a mean of 3.98 suggest a flexible teaching approach that adapts to varied learning needs.

Meanwhile, competencies like inviting expert researchers for dialogue with a mean of 3.93 and using anecdotal feedback with a mean of 3.87 reflect efforts to deepen the learning experience through external perspectives and reflective practices, though these areas appear slightly less emphasized. This finding is congruent to the analysis of Matos et al. (2023) on effective research pedagogical practices that teachers should be encouraging hands-on and practical applications as well as autonomy and self-reflection through a well-defined and balanced approaches in research instruction.

**Table 5. Competence of respondents in terms of the ability to Teach Research Skills**

|  |  |  |
| --- | --- | --- |
| **Indicators** | **Mean** | **Interpretation** |
| I let students do hands-on exercises in group activities such as article reviews and abstract readings. | 4.28 | Very much competent |
| I organize research defenses. | 4.22 | Very much competent |
| I use question-led approach that engender curiosity and surprise in discovering research methods. | 4.12 | Much competent |
| I engage students in field and desk research in exploring research methods. | 4.06 | Much competent |
| I use customized or adaptable online resources such as learning modules and activity sheets. | 4.03 | Much competent |
| I engage students with ongoing research projects of scholars/researchers. | 4.03 | Much competent |
| I use traditional forms of teaching strategies and assessment, such as research workshop/developmental research writing activities. | 4.02 | Much competent |
| I provide visual, narrative, and interdisciplinary contexts through open educational resources. | 3.98 | Much competent |
| I invite researcher with specific expertise to act as a discussion facilitator for an open dialogue. | 3.93 | Much competent |
| I use anecdotal feedback to address learning difficulty in mastering the skills. | 3.87 | Much competent |
| **Mean** | **4.05** | **Much competent** |

**4. CONCLUSION**

This study assessed the research competence of senior high school Research teachers in the Division of Northern Samar. The senior high school teachers have sufficient knowledge and expertise in teaching research to Senior High School students. Though the teachers expressed strong competence in this field, there are concerns about theoretical and conceptual frameworks, data analysis, theory generation, use of technology in research, and the use of anecdotal feedback in addressing students’ learning difficulties. While self-assessment reflects confidence, it may not fully align with actual instructional and research performance. Hence, competency assessments can include external validation such as peer review, observed teaching demonstrations, and student output analysis to ensure alignment between perception and performance. There is a need for the Department of Education to establish structured professional development tracks for teachers handling research subjects such as mentorship programs, research coaching, and regular research learning circles facilitated by academic experts on various platforms to ensure continuous, collaborative learning. A follow-up study to include beneficiaries of the research teaching, e.g. research students, parents, or common citizens as respondents, is needed.

**Ethical Approval:**

As per international standards or university standards written ethical approval has been collected and preserved by the author(s).

**Consent**

As per international standards or university standards, Participants’ written consent has been collected and preserved by the author(s).

**Disclaimer (Artificial intelligence)**

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Details of the AI usage are given below:

1.

2.

3.

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