

# ASSESSING THE RESEARCH CAPABILITY OF TEACHERS IN THE ALTERNATIVE LEARNING SYSTEM: FACTORS INFLUENCING EFFECTIVE RESEARCH SKILL DEVELOPMENT IN DEPED REGION XI

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DOI: <https://doi.org/10.5281/zenodo.15130564>

Published Date: 03-April-2025

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**Abstract:** This study assessed the research capability of Alternative Learning System (ALS) teachers in DepEd Region XI, examining the factors that influence their research skills. Specifically, it focused on teachers' research knowledge, attitudes toward research, and the barriers they face in conducting research, alongside their research capability in conceptual, computational, and technical skills. Using a quantitative non-experimental research design with a descriptive-correlational technique and regression analysis, data were gathered through a structured survey instrument. Findings indicated a moderate research capability, with strengths in computational skills but challenges in conceptual and technical aspects. While teachers had high research knowledge and positive attitudes, barriers such as limited resources, time constraints, and insufficient training hindered research engagement. Statistical analysis indicated a significant positive correlation between research knowledge, attitudes toward research, barriers to conducting research, and overall research capability. Moreover, research knowledge emerged as the strongest predictor of teachers' research capability. These findings underscore the need for targeted interventions to strengthen ALS teachers' research culture and skills, ultimately improving evidence-based educational practices.

**Keywords:** alternative learning system, attitudes toward research, barriers, DepEd Region XI, research capability, research knowledge.

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## I. INTRODUCTION

Teachers of the Alternative Learning System (ALS) in the Philippines play a vital role in educating out-of-school youth and adults. They are often the first point of contact for learners marginalized or disadvantaged by the formal education system. Teachers work in various settings, including community learning centers, workplaces, and even homes, to deliver subjects such as literacy, numeracy, life skills, and vocational training.

It is reported that despite their challenges, ALS teachers are passionate about their work and committed to helping their learners succeed (Aque & Benavides, 2020). Accordingly, the research capability of these teachers is essential for strengthening their practice and better meeting the needs of their learners. As stressed by scholars and researchers, research

## International Journal of Novel Research in Interdisciplinary Studies

Vol. 12, Issue 2, pp: (1-21), Month: March – April 2025, Available at: [www.noveltyjournals.com](http://www.noveltyjournals.com)

can help teachers develop new and innovative teaching methods, identify and address the specific needs of the learners, evaluate the effectiveness of their teaching, and contribute to the growing body of knowledge on education (Mahani & Molki, 2012). However, there are some concerns about the research capability of ALS teachers in the Philippines.

Pimentel and Bañares (2022) found that Alternative Learning System teachers had only a limited mastery of research skills, while Caingcoy (2020) observed that some lacked interest in conducting research. Additionally, the study revealed that ALS teachers lacked formal research training and encountered challenges such as limited time and resources. This finding aligns with the study of Manila et al. (2022), which noted that teachers demonstrated only a slight capability in performing tasks related to educational research.

This study delves into the factors contributing to this issue, its consequences, and possible solutions to invigorate teachers in the Alternative Learning System of DepEd Region XI to embrace research to advance the educational landscape. Understanding the opportunities and challenges that either facilitate or hinder the development of effective research skills among these teachers is essential in improving the ALS programs in DepEd Region XI. It benefits the educators and, most importantly, the underserved communities they serve, promoting access to quality education and a brighter future for all ALS learners.

### Statement of the Problem

This study aims to assess the research capabilities of ALS teachers by evaluating their research skills and the potential factors that may influence them. The specific research questions that guide the researchers in the direction of the study are as follows:

1. To what degree are the ALS teachers capable of conducting research?
2. To what extent are the ALS teachers' knowledge and attitudes toward research?
3. To what degree do the barriers impede the ability of the respondents to engage in research activities?
4. Is there a significant correlation between the teachers' research capabilities and their knowledge, attitudes, and barriers to conducting research?
5. Do these factors significantly predict the research capabilities of ALS teachers?

### Theoretical Framework

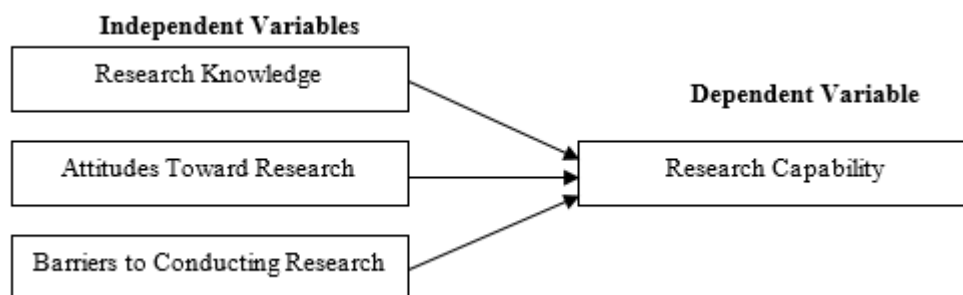
This study is anchored on Bandura's Social Cognitive Theory in 1960 and the Tripartite Model of Attitudes developed by Yale University in the 1950s and 1960s. These concepts emphasized the role of observational learning, imitation, and modeling of attitudes, behaviors, and skills development. Applied to the context of teachers and research, these models suggest that teachers learn from observing others who demonstrate positive attitudes and effective research capabilities.

Bandura's concept of self-efficacy is central to Social Cognitive Theory. According to Callaghan and Lazard (2011), self-efficacy refers to a person's confidence in their abilities and capacities to accomplish specific tasks. It represents a person's belief in their capability to execute a particular task within a given situation (Kassin, Fein, and Markus, 2016). Manstead (1996) further elaborates that if individuals believe they can execute the assigned task, they are more inclined to attempt and succeed even in challenging circumstances. It can be inferred that the assurance in one's ability to execute tasks (such as research processes) is intertwined with the requisite conduct (conducting research). The greater an individual's confidence in performing the research process, the higher the chance of success in conducting research.

Moreover, this study is based on the tripartite model of attitudes developed by Yale University in the 1950s and 1960s, as referenced by Callaghan and Lazard (2011). According to this model, attitudes comprise three primary components: the cognitive component, the affective component, and the behavioral component. The cognitive component pertains to the knowledge and beliefs about the attitude object, while the affective component concerns the emotional reactions toward the attitude object. The behavioral component relates to how individuals think, behave, or act toward the attitude object (DeLamater & Myers, 2012). This study assesses teachers' attitudes toward research, incorporating statements reflecting their thoughts, behaviors, and feelings toward research.

**Conceptual Framework**

The conceptual framework of this study illustrates the relationship between the research capability of ALS teachers and three key independent variables: knowledge in conducting research, attitudes toward research, and the barriers to conducting research. Teachers’ research knowledge influences their ability to apply research methodologies effectively, while their attitudes toward research – whether positive or negative – impact their motivation and engagement in research activities. Additionally, barriers to conducting research, such as limited resources, time constraints, or lack of institutional support, may hinder their research development. By examining these factors, the study aims to determine how they collectively influence the research capability of ALS teachers, providing insights into areas that need improvement to enhance their skills and participation.



**Figure 1. Conceptual Framework**

**II. METHODOLOGY**

**Research Design**

This study employed a quantitative non-experimental research design, utilizing descriptive-correlational and regression analysis. In non-experimental research, data is collected in natural settings without interventions or treatments (Gehle, 2013). The descriptive design aims to describe and document the characteristics, behaviors, and phenomena of a specific group, population, or event. Its primary goal is to provide an accurate and detailed representation of the subject under investigation, without attempting to manipulate or control any variables (Brians, 2011). In this study, descriptive measures were used to report on the research capabilities of ALS teachers, their knowledge level regarding conducting research, their attitudes toward research, and the barriers they face in conducting research.

Additionally, in a correlational study, the variables are not experimentally controlled or treated, instead, they associate two variables (or more) using correlational statistics (Coulehan & Wells, 2006). The degree of correlation between two variables is classified as a correlation coefficient. A positive correlation happens when it either increases or decreases simultaneously. A negative correlation occurs when one variable increases, the other decreases, and vice versa (Bluman, 2009). A zero correlation indicates that no relationship exists between the variables. This study explored the significant relationships between teachers’ research capability, their knowledge and attitude toward research, and the barriers they encounter in conducting research.

Meanwhile, regression analysis was used to investigate the relationship between a single dependent variable and multiple independent variables (Uyanık & Güler, 2013). The use of multiple linear regression in this study is to explore the predictive relationships between independent variables and a single dependent variable. In assessing teachers' research capability, multiple linear regression offers a robust method to identify the factors that significantly impact teachers' readiness and proficiency in research activities.

**Research Respondents and Locale of the Study**

The respondents were the 251 teachers from various Alternative Learning System classrooms and centers in the eleven division offices of Region XI. The sample respondents were obtained through simple random sampling using Cochran’s Formula provided by Dillman (2007) to estimate the sample size. Noor et al. (2022) described simple random sampling as widely used in quantitative research that employs research survey instruments. In this method, each respondent has an equal chance of being included in the study, essentially relying on chance.

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Moreover, the researchers employed a stratified proportionate sampling technique to guarantee the appropriate distribution of respondents. This was done by defining the sample size to be drawn from each division office and multiplying the proportion of the total sample by the total number of ALS teachers in each division. Table 1 summarizes the distribution of the respondents.

**Table 1. Distribution of the Respondents**

Schools Division Offices	Population	%	Sample
Schools Division of Davao City	108	15%	38
Schools Division of Davao De Oro	78	11%	28
Schools Division of Davao del Norte	150	21%	53
Schools Division of Davao del Sur	77	11%	27
Schools Division of Davao Occidental	69	10%	24
Schools Division of Davao Oriental	70	10%	24
Schools Division of Digos City	20	3%	7
Schools Division of the Island Garden City of Samal	18	3%	6
Schools Division of the City of Mati	30	4%	11
Schools Division of Panabo City	69	10%	24
Schools Division of Tagum City	27	4%	9
<b>Total</b>	<b>716</b>	<b>100%</b>	<b>251</b>

Source: PPRD Region XI, LIS Generated, as of April 1, 2024

**Research Instruments**

This study utilized four (4) adapted survey questionnaires focusing on research capability, teachers’ research knowledge, attitudes toward research, and barriers to conducting research. For each item in the survey questionnaire, the response is modified into a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5).

The first set of survey questionnaires is taken from the International Journal of Management and Social Sciences Research (IJMSSR), developed in 2016 with a Cronbach’s alpha of 0.958. This tool measures the research capabilities of individuals in three areas: conceptual skills, computational skills, and technical skills. It comprised 27 items, representing 14 items in conceptual skills, 7 items in computational skills, and 6 items in technical skills. Responses for each item of the indicators of research capability used the following parameter limits, descriptive equivalent, and interpretation:

**Table 2. Scale for Research Capability**

Parameter Limits	Descriptive Equivalent	Interpretation
4.21 – 5.00	Very High	Indicates a very high capability to conduct research.
3.41 – 4.20	High	Indicates a high capability to conduct research.
2.61 – 3.40	Moderate	Indicates an average capability to conduct research
1.81 – 2.60	Low	Indicates a slight capability to conduct research.
1.00 – 1.80	Very Low	Indicates a deficient capability to conduct research.

The second set of survey questionnaires, developed by Perez et al. (2022), aims to assess individuals' knowledge and familiarity with the research process. This questionnaire consists of 25 items. Additionally, the survey instrument has demonstrated high reliability, as evidenced by its Cronbach’s alpha of 0.955. Responses for each item of teachers’ research knowledge used the following parameter limits, descriptive equivalent, and interpretation:

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**Table 3. Scale for the Knowledge Level of Conducting Research**

Parameter Limits	Descriptive Equivalent	Interpretation
4.21 – 5.00	Very High	Indicates a very high knowledge of conducting research.
3.41 – 4.20	High	Indicates a high knowledge of conducting research.
2.61 – 3.40	Moderate	Indicates an average knowledge of conducting research.
1.81 – 2.60	Low	Indicates a slight knowledge of conducting research.
1.00 – 1.80	Very Low	Indicates a deficient knowledge of conducting research.

The third instrument is the Revised Attitudes Toward Research Scale, developed by Papanastasiou (2014). It measures the attitudes of individuals toward research usefulness, anxiety, and predispositions. It is composed of 24 items. The survey questionnaire was computed with a high Cronbach's alpha equal to 0.877, indicating a high degree of internal consistency between items. Responses for each item of the indicators of attitudes toward research used the following parameter limits, descriptive equivalent, and interpretation:

**Table 4. Scale for the Attitudes Toward Research**

Parameter Limits	Descriptive Equivalent	Interpretation
4.21 – 5.00	Very High	Indicates a highly positive attitude toward research.
3.41 – 4.20	High	Indicates a somewhat positive attitude toward research.
2.61 – 3.40	Moderate	Indicates a neutral or ambivalent attitude toward research.
1.81 – 2.60	Low	Indicates a somewhat negative attitude toward research.
1.00 – 1.80	Very Low	Indicates a highly negative attitude toward research.

The fourth set of survey questionnaires determines the degree to which barriers hinder the individual's ability to engage in research activities. This was developed by Shrestha et al. (2021). The final structure consists of 17 items. It has demonstrated good reliability, as evidenced by its Cronbach's alpha of 0.768. Responses for each item of barriers in conducting research used the following parameter limits, descriptive equivalent, and interpretation:

**Table 5. Scale for the Barriers of Conducting Research**

Parameter Limits	Descriptive Equivalent	Interpretation
4.21 – 5.00	Very High	Indicates a strong perception of barriers, demonstrating significant challenges in conducting research.
3.41 – 4.20	High	Indicates an acknowledgment of barriers, suggesting some hindrance to research.
2.61 – 3.40	Moderate	Indicates a moderate level of significance regarding the presence of barriers.
1.81 – 2.60	Low	Indicates a mild perception of barriers, but they are not considered significant obstacles.
1.00 – 1.80	Very Low	Indicates minimal or no perceived barriers in conducting research.

**Data Collection**

To commence the data collection phase of this research study, the researcher strictly adhered to a formal entry protocol. This process guarantees obtaining the necessary permissions and clearances from relevant educational authorities. It involved a series of official communications and requests, emphasizing the legitimacy and ethical compliance of the study.

The researcher sent a formal letter of request addressed to the Regional Director of the Department of Education Region XI. This letter concisely outlined the research study's objectives, methodology, significance, and ethical considerations. It also requested approval and support for conducting the study within the jurisdiction of the Alternative Learning System in the Department of Education Region XI.

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With the Regional Director's approval and authorization, the researcher composed individualized letters of request addressed to the schools division superintendents of Region XI. These letters reiterated the research study's objectives and significance while seeking permission to engage with schools under their jurisdiction.

The researcher submitted evidence of ethical clearance to Davao Oriental State University- Research Ethics Office (REO). This clearance affirmed the study's adherence to ethical principles and safeguards for participants' rights and privacy. Following the approval of the school division superintendents, the researcher contacted the ALS Focal and supervisors of the selected school districts and divisions. The researcher sent a formal letter of request to each supervisor, introducing the study and its objectives, and seeking permission to conduct the research within their respective institutions.

After the necessary approval letters were secured, the researcher coordinated with the supervisors and the school head to schedule the distribution of survey questionnaires to the respondents. The scheduling was done at the respondents' convenience to maximize response rates and participation.

### Data Analysis

Using the proper statistical techniques, the data were analyzed and interpreted. The mean was used to measure the level of the research capability, knowledge, and attitudes of ALS teachers toward research. The mean was also used to measure the extent to which barriers hinder the respondents' participation in research activities. Standard deviation was used to quantify the variation or dispersion in a set of data points. Pearson's correlation coefficient  $r$  was used to determine the relationships between the variables. It was used to analyze the correlation between the research capability and the factors that may affect the research engagements of ALS teachers. Multiple linear regression analysis was also performed to investigate the significant influence of those potential factors on the research capabilities of ALS teachers.

## III. RESULTS

### Extent of Research Capability Among ALS Teachers in DepEd Region XI

Table 6 presents the mean scores for the items assessing the research capabilities of teachers, with an overall mean of 3.38, categorized as a moderate level, indicating that teachers in the Alternative Learning System of DepEd Region XI demonstrate average research capability. The standard deviation of 0.96 suggests considerable variability in teachers' research skills, indicating that while some exhibit higher proficiency, others may need further support.

The findings on the research capabilities of ALS teachers in terms of conceptual skills reveal a category mean score of 3.37, categorized as a moderate level, with a standard deviation of 0.95. This indicates that while ALS teachers have a foundational understanding of research processes, there is considerable room for improvement, particularly in more complex aspects of conceptualization. Additionally, the findings on the second indicator, computational skills, reveal a category mean score of 3.41, categorized as a high level, with a standard deviation of 0.94. This indicates that ALS teachers can perform computational tasks related to research, demonstrating proficiency in handling and analyzing data. These skills are critical for ensuring the accuracy of statistical computations and the meaningful interpretation of research results, making these findings a positive reflection of the teachers' research competency. Furthermore, the findings on the third indicator, technical skills, reveal a category mean score of 3.38, categorized as a moderate level, with a standard deviation of 0.99. This result suggests that ALS teachers have an average proficiency in the technical aspects of conducting research, which includes handling data, using technology, and adhering to academic standards.

**Table 6. Extent of Research Capabilities Among Teachers in the Alternative Learning System of DepEd Region XI**

<i>Conceptual Skills</i>	SD	Mean	Descriptive Level
Identifying instructional problems in the school	0.86	3.86	High
Defining and checking the research title	1.00	3.37	Moderate
Formulating the conceptual framework of the study based on the objectives	0.90	3.42	High
Formulating specific subproblems	0.91	3.21	Moderate
Determining the boundaries of the study	0.97	3.48	High
Defining terms operationally and conceptually	0.92	3.36	Moderate

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Establishing the relevance of the study	0.97	3.55	High
Preparing an objective review of the literature	0.93	3.20	Moderate
Determining the research design to be used in the study	0.95	3.02	Moderate
Arranging the research setting, respondents, and spelling out the procedures	0.99	3.18	Moderate
Preparing data-gathering tools for the study	0.98	3.18	Moderate
Analyzing and interpreting the outcome of the study	0.94	3.31	Moderate
Formulating the specific findings of the study	0.93	3.37	Moderate
Drawing recommendations properly	0.98	3.67	High
<b>Category Mean</b>	<b>0.95</b>	<b>3.37</b>	<b>Moderate</b>
<b>Computational Skills</b>			
Interpreting the reliability of the coefficient in the instrument's dry run	0.95	3.38	Moderate
Establishing a suitable measuring scale in the data-gathering tool	0.98	3.27	Moderate
Determining appropriate statistical tools for univariate, bivariate, and multivariate problems	0.93	3.21	Moderate
Computing and interpreting statistical data for a univariate problem like frequency count, percentage, ranking, and mean values	0.96	3.39	Moderate
Presenting the data in a tabular or graphical manner	0.90	3.75	High
Locating the critical values in data analysis	0.96	3.33	Moderate
Interpreting the level of significance used in the study	0.93	3.51	High
<b>Category Mean</b>	<b>0.94</b>	<b>3.41</b>	<b>High</b>
<b>Technical Skills</b>			
Handling data correctly	0.98	3.07	Moderate
Encoding the study using the computer	1.00	3.82	High
Observing the mechanics of thesis/dissertation writing	0.98	3.33	Moderate
Writing the bibliography properly	0.98	3.67	High
Documenting the cited literature correctly	1.00	3.20	Moderate
Using statistical software to analyze data	0.99	3.02	Moderate
<b>Category Mean</b>	<b>0.99</b>	<b>3.35</b>	<b>Moderate</b>
<b>Overall Mean</b>	<b>0.96</b>	<b>3.38</b>	<b>Moderate</b>

**Research Knowledge of ALS Teachers in DepEd Region XI**

Table 7 presents the mean scores for the items evaluating teachers' knowledge of research, with an overall mean of 3.47, categorized as a high level, and an overall standard deviation of 0.91. This result indicates that ALS teachers in DepEd Region XI understand the research concepts and processes. This high level of knowledge shows their readiness to understand and engage in various aspects of the research process, although specific areas reveal strengths and potential gaps for improvement. The relatively low standard deviation implies a consistent knowledge level across the respondents, with minimal response variations.

**Table 7. Research Knowledge of ALS Teachers in DepEd Region XI**

Items	SD	Mean	Descriptive Level
Knowing the nature of educational research	0.76	3.95	High
Understanding the language of research	0.78	3.94	High
Knowing how to make a research title	0.98	3.12	Moderate
Knowing how to write an introduction to an article	0.74	3.94	High

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Knowing how to write a review of related literature	0.91	3.38	Moderate
Knowing how to formulate research questions	0.98	3.16	Moderate
Setting the parameters of the study	0.76	3.83	High
Knowing how to make conceptual and theoretical frameworks	1.06	3.25	Moderate
Knowing the appropriate research design to be used in research	0.94	3.01	Moderate
Knowing what the population and sample are	0.73	3.95	High
Identifying a particular statistical tool to be used in a study	0.93	3.24	Moderate
Knowing how to sustain the trustworthiness of the data gathered	1.03	3.36	Moderate
Knowing how to conduct interviews	0.72	4.06	High
Understanding the ethical considerations in research	1.04	3.76	High
Knowing how to analyze results	0.96	2.78	Moderate
Knowing how to read tables and other graphical representations	0.92	3.36	Moderate
Using the software to analyze data	1.11	2.86	Moderate
Knowing how to validate the results	0.81	3.84	High
Knowing how to draw conclusions	0.99	3.36	Moderate
Knowing how to do in-text citations	0.83	3.83	High
Knowing how to paraphrase and summarize	1.05	3.16	Moderate
Knowing how to use the APA 7 <sup>th</sup> edition in citations	0.85	3.78	High
Knowing how to make my paper publishable	1.07	3.06	Moderate
Knowing how to scrutinize journals	0.81	3.71	High
Knowing how to make the abstract of the study	0.97	3.14	Moderate
<b>Overall Mean</b>	<b>0.91</b>	<b>3.47</b>	<b>High</b>

Among the assessed items, the highest mean score was observed in knowing how to conduct interviews (4.06), indicating that ALS teachers are highly confident in collecting qualitative data through this method. Similarly, high scores were seen in knowing the nature of educational research (3.95), understanding the language of research (3.94), and knowing what the population and sample are (3.95), reflecting their strong grasp of fundamental research principles and terminologies. These strengths are essential for initiating and conceptualizing research studies effectively.

However, moderate mean scores were recorded for more advanced or technical aspects, such as knowing how to analyze results (2.78) and using software to analyze data (2.86), which highlight significant areas of development. These findings suggest that while teachers understand the theoretical aspects of research, they may lack confidence or experience in applying statistical tools and software for data analysis. Other areas needing improvement include knowing the appropriate research design to be used (3.01) and knowing how to make their paper publishable (3.06), which are critical for enhancing the quality and applicability of their research outputs.

**Level of Attitudes Toward Research of ALS Teachers in DepEd Region XI**

Table 8 presents the assessment of ALS teachers' attitudes toward research, which yielded an overall mean of 3.64, categorized as a high level, with a standard deviation of 0.91. This result indicates that teachers generally exhibit a positive and supportive attitude toward research, recognizing its value in improving educational practices and addressing instructional challenges within the Alternative Learning System. Their overall high level of attitude suggests a strong willingness to engage in research activities and a belief in its role as a tool for professional growth and evidence-based decision-making. Similarly, the standard deviation shows moderate response variability, suggesting that while most teachers exhibit a positive attitude, a few may exhibit reservations or less enthusiasm toward research.



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**Table 8. Attitude Level of ALS Teachers Toward Research**

	SD	Mean	Descriptive Level
<b>Research Usefulness</b>			
Recognizing the usefulness of research for my career	0.81	4.22	Very High
Acknowledging the relevance of research to my field of study	0.95	3.90	High
Recognizing the future value of research skills	0.82	4.07	High
Emphasizing the significance of research in professional training	0.89	3.96	High
Recognizing research as a driver of educational innovation	0.87	4.08	High
Utilizing research to enhance teaching practices	0.95	4.02	High
Identifying strategies for student success through research	0.88	4.05	High
Shaping educational policy through research	1.07	3.70	High
Addressing diverse learning needs through educational research	0.92	3.95	High
Using evidence to inform educational leadership and reform	0.98	3.80	High
<b>Category Mean</b>	<b>0.91</b>	<b>3.98</b>	<b>High</b>
<b>Research Anxiety</b>			
Experiencing feelings of unease toward research	0.94	2.18	Low
Feeling nervous while engaging in research	1.06	3.11	Moderate
Engaging in research involves challenging tasks	1.22	3.12	Moderate
Refraining from pursuing research due to the fear of failing	0.97	3.04	Moderate
Having anxiety about research because of a lack of experience	1.06	3.25	Moderate
Feeling worried due to uncertainty about data analysis methods	1.00	3.25	Moderate
Unwilling to do research due to limited access to resources	1.07	3.10	Moderate
<b>Category Mean</b>	<b>1.05</b>	<b>3.01</b>	<b>Moderate</b>
<b>Research Predispositions</b>			
Enjoying doing research	0.82	3.75	High
Finding pleasure in doing research	0.85	3.76	High
Being motivated to contribute to research	0.81	3.89	High
Exploring areas where research opportunities arise	0.77	3.92	High
Integrating research findings into teaching strategies	0.70	4.00	High
Having the desire to improve my teaching methods through evidence-based practices	0.71	4.11	High
Willing to engage in professional development opportunities	0.70	4.17	High
<b>Category Mean</b>	<b>0.77</b>	<b>3.94</b>	<b>High</b>
<b>Overall Mean</b>	<b>0.91</b>	<b>3.64</b>	<b>High</b>

The assessment of ALS teachers' attitude toward research in terms of research usefulness, with a category mean of 3.98, categorized as high level, and a standard deviation of 0.91, reflects a strong recognition of the value and applicability of research in their professional roles. The high mean rating underscores that teachers perceive research as a tool for advancing their careers, enhancing their teaching practices, and fostering innovation in the educational landscape. The second indicator, research anxiety, reveals a category mean of 3.01, categorized as a moderate level, with a standard deviation of 1.05. This result indicates that while teachers generally exhibit moderate confidence levels in conducting research, they also experience varying degrees of apprehension and uncertainty. The moderate level of anxiety reflects the presence of challenges that could hinder their willingness to engage in research activities. The third indicator, research predispositions, reveals a category mean of 3.94, categorized as a high level, with a standard deviation of 0.77. This result indicates that teachers demonstrate a strong inclination and positive mindset toward research activities. The relatively low standard deviation suggests consistency in their responses, highlighting a generally shared enthusiasm and willingness to embrace research opportunities among the teachers.

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**The Degree of Barriers of ALS Teachers in DepEd Region XI to Conduct Research**

Table 9 presents the assessment of the degree of barriers faced by ALS teachers in conducting research, yielding an overall mean score of 3.83, categorized as a high level, with a standard deviation of 0.84. This result indicates that teachers encounter substantial challenges that hinder their ability to engage effectively in research. The relatively high standard deviation suggests variability in how significantly individual teachers experience these barriers, likely influenced by differences in their specific contexts, resources, and level of research exposure.

**Table 9. Degree of Barriers of ALS Teachers to Conducting Research**

Items	SD	Mean	Descriptive Level
1. Having limited funds to support educational research	0.72	4.12	High
2. Having limited time for research work	0.71	4.16	High
3. Having limited training related to research	0.73	4.14	High
4. Having a minimal interest in conducting research	0.79	3.82	High
5. Facing challenges in progress due to the limited availability of research subjects in baccalaureate degree programs	0.74	3.99	High
6. Having limited familiarity with statistical techniques	0.76	3.98	High
7. Having limited equipment and facilities to do research	0.75	3.98	High
8. Having limited support from colleagues and administration for my research initiatives	0.94	3.63	High
9. Lacking a good research atmosphere in the school	0.91	3.64	High
10. Having difficulty obtaining approval from school heads obstructs my progress	0.98	3.57	High
11. Having challenges obtaining ethical approval	0.95	3.64	High
12. Having limited familiarity with identifying issues and problems to be investigated in research	0.86	3.79	High
13. Having limited knowledge of research ethics	0.84	3.77	High
14. Having limited encouragement from school heads to pursue research work	0.98	3.57	High
15. Having limited familiarity with research methodologies	0.87	3.75	High
16. Having limited access to information sources	0.87	3.73	High
17. Having limited familiarity with journal publications	0.83	3.80	High
<b>Overall Mean</b>	<b>0.84</b>	<b>3.83</b>	<b>High</b>

The most significant barriers include limited time for research work (4.16), limited training related to research (4.14), and limited funds to support educational research (4.12). These findings underscore issues such as heavy workloads, lack of professional development opportunities, and insufficient financial support, which impede teachers' research productivity. ALS teachers also experience challenges related to the limited availability of research subjects in their baccalaureate degree programs (3.99), and limited familiarity with statistical techniques and methodologies (both 3.98), reflecting gaps in technical knowledge and research design skills.

Similarly, research constraints are further evident in barriers such as limited equipment and facilities (3.98) and restricted access to information sources (3.73), which highlights the need for improved infrastructure and access to research materials. Additionally, teachers face a lack of support from colleagues and administration (3.63) and minimal encouragement from school heads to pursue research (3.57), pointing to organizational and cultural factors that hinder a research-conducive environment. Challenges in navigating institutional processes, such as obtaining ethical approvals (3.64) and school head clearances (3.57), also add to the complexity of conducting research.

In terms of personal and professional preparedness, teachers reported limited familiarity with journal publications (3.80), difficulty identifying issues and problems to investigate (3.79), and limited knowledge of research ethics (3.77). These findings indicate a need for targeted professional development to build their capacity and confidence.

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**Significance of the Relationship Between Research Knowledge, Attitudes Toward Research, Barriers to Conducting Research, and Research Capability of ALS Teachers in DepEd Region XI**

Table 10 shows the relationships between teachers’ research knowledge, attitudes toward research, barriers to conducting research, and their research capability. The results revealed significant positive correlations between all three predictors (research knowledge, attitudes, and barriers) and research capability.

The correlation between teacher research knowledge and research capability was moderate ( $r = 0.589, p < 0.01$ ), indicating a significant positive relationship. This suggests that as research knowledge increases, so does their research capability. Similarly, the correlation between teachers’ attitudes toward research and research capability was also significant ( $r = 0.366, p < 0.01$ ), reflecting a weak positive relationship. This indicates that while a positive attitude toward research is associated with higher research capability, the strength of the relationship is weaker compared to research knowledge. Despite the weaker correlation, this finding suggests that fostering positive attitudes toward research may still contribute to improving teachers’ research capabilities. Finally, the correlation between barriers to conducting research and the research capability was positive ( $r = 0.262, p < 0.01$ ), which, while lower than the other correlations, still indicates a statistically significant positive relationship. This suggests that the fewer the barriers, the more capable they are of conducting research. Although this correlation is weaker, it highlights the importance of addressing barriers to fostering teachers’ research capabilities.

**Table 10. Significance of the Relationship Between Research Knowledge, Attitudes Toward Research, Barriers to Conducting Research, and Research Capability of ALS Teachers in DepEd Region XI**

Variables	1	2	3	4
1 Research Knowledge	1.000			
2 Attitudes Toward Research	0.484**	1.000		
3 Barriers to Conducting Research	0.398**	0.385**	1.000	
4 Research Capability	0.589**	0.366**	0.262**	1.000

\*\* . Correlation is significant at the 0.01 level (2-tailed).

No. of cases is 251.

**Influence of Research Knowledge, Attitudes Toward Research, and Barriers to Conducting Research on Research Capability**

Table 11 presents the influence of teachers’ research knowledge, attitudes toward research, barriers to conducting research, and research capability using multiple regression analysis. The results showed that the model is statistically significant ( $F = 45.345, p < 0.01$ ), explaining 35.50% of the variance in research capability.

Among the predictors, teachers’ research knowledge had the most substantial influence on teachers’ research capability ( $\beta = 0.534, t = 8.835, p = 0.000$ ). This indicates a strong positive and significant relationship, suggesting that increasing research knowledge significantly enhances the capability to conduct research. Attitudes toward research showed a weak and statistically nonsignificant influence on research capability ( $\beta = 0.104, t = 1.732, p = 0.084$ ). This implies that while positive attitudes may contribute to research capability, their direct effect is limited when controlling for other factors. Similarly, barriers to conducting research exhibited a small positive and nonsignificant relationship with research capability ( $\beta = 0.009, t = 0.164, p = 0.870$ ). This suggests that although barriers might hinder teachers’ research engagement, their direct influence on research capability is not substantial within this model.

**Table 11. Predictors of Research Capability Among ALS Teachers in DepEd Region XI**

Variables	B	SE	$\beta$	T	Sig.
Research Knowledge	0.444	0.050	0.534	8.835	0.000
Attitudes Toward Research	0.110	0.063	0.104	1.732	0.084
Barriers to Conducting Research	0.005	0.033	0.009	0.164	0.870

*Dependent Variable: Teacher Research Capability*

Note:  $r = 0.596, r^2 = 0.355, F = 45.345, p < 0.000$

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Generally, teachers' research knowledge is the primary predictor of research capability, while attitudes and barriers play less significant roles when considered alongside other factors. These findings highlight the importance of equipping teachers with research knowledge to enhance their research capability and addressing barriers and attitudes as supportive measures rather than primary drivers.

### IV. DISCUSSION

#### Extent of Research Capability Among ALS Teachers in DepEd Region XI

The overall analysis of teachers' research capability in the Alternative Learning System of DepEd Region XI, rated in terms of conceptual, computational, and technical skills, reveals a moderate level of proficiency, as reflected by the mean score results. This indicates that while ALS teachers possess the foundational skills necessary for conducting research, there are notable areas for growth and enhancement. The moderate capability further suggests that teachers can identify problems, develop basic research designs, and analyze findings. Still, they encounter challenges in more complex or advanced aspects of research, such as applying statistical tools, utilizing technological resources, and ensuring methodological rigor.

In terms of conceptual skills, moderate proficiency reflects teachers' ability to identify relevant research problems and their struggle to translate these into methodologically sound research designs. Borg (2013) emphasized that educators often lack formal training, leading to a theoretical grasp of research without the practical ability to implement it. Similarly, McDonagh et. al (2019) noted that teachers find it challenging to align their research questions with real-world issues due to insufficient exposure to research frameworks. Additionally, Burns (2009) highlighted that teachers in nontraditional education settings often lack access to structured opportunities to build their conceptual skills, further hindering their progress in research.

For computational skills, the study shows teachers face challenges in analyzing and interpreting data, a common barrier in educational research. Creswell and Clark (2017) pointed out that proficiency in data analysis requires a solid foundation in statistics, which many teachers lack due to limited professional development. Agbeyangi and Suleman (2024) observed that computational challenges are particularly pronounced in resource-constrained environments, where access to software and training is limited. Moreover, Johnson and Onwuegbuzie (2004) emphasized that educational research requires advanced computational skills that teachers may find overwhelming without adequate support.

In the area of technical skills, the moderate rating reflects teachers' difficulty in writing reports, presenting findings, and adhering to ethical research standards. Elliot and Crosswell (2002) identified technical skills as a neglected area in teacher training programs, leaving educators unprepared to communicate their research effectively. Mertler (2016) underscored that the lack of structured feedback on the research process contributes to low confidence in technical skill development. Additionally, Roberts (2010) emphasized the importance of ongoing support in research dissemination, particularly in contexts where teachers face significant pressures, such as administrative duties and limited time for academic pursuits.

However, Willemse and Boie (2013) highly emphasized that research plays a crucial role in the professional growth of educators and serves as a key mechanism for enhancing the quality of the teacher education curriculum. They underscore the importance of fostering communities of inquiry where teachers and educators can collaborate on research, refine their skills, establish a common language, and contribute to the expanding knowledge base in teacher education.

#### Research Knowledge of ALS Teachers in DepEd Region XI

The general result of ALS teachers' research knowledge demonstrates a high level of proficiency as reflected in the overall mean. This finding indicates that ALS teachers have a solid understanding of fundamental research concepts, methodologies, and ethical practices, equipping them to engage in research initiatives effectively. Such a level of knowledge is vital for addressing instructional challenges and fostering innovation in alternative education. However, despite these positive results, specific areas such as statistical analysis and the use of advanced research tools still require additional support to ensure comprehensive capability and readiness for more complex research tasks.

This finding aligns with studies emphasizing the critical role of research knowledge in professional growth and evidence-based teaching practices. Barrot (2023) highlighted that enhanced research knowledge improves educators' capacity to innovate and solve educational problems. Pasupathy and Siwatu (2014) also stressed that developing research knowledge increases teachers' confidence and productivity in conducting studies. Drageset, Saether, and Ell (2025) linked higher levels of research literacy among teachers to improved teaching outcomes, while Comon and Corpuz (2024) and Villena-Agreda (2021) underscored the need for continuous capacity-building programs to maintain proficiency in evolving research methodologies.

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These findings suggest that sustained professional development efforts can further empower ALS teachers, enabling them to maximize their potential as contributors to educational advancement and reform.

### Attitudes of ALS Teachers in DepEd Region XI Toward Research

The general result of ALS teachers' attitude toward research, rated in terms of research usefulness, research anxiety, and research predispositions, indicates a high and positive level of disposition. This suggests that ALS teachers recognize the importance of research in improving teaching practices, addressing educational challenges, and advancing professional development. The high ratings in research usefulness and research predispositions underscore their awareness of the significant role of research in fostering educational innovation and evidence-based practices. However, the moderate rating in research anxiety highlights some challenges, including apprehensions about research processes, statistical analysis, and resource accessibility, which may hinder full engagement in research activities.

These findings are consistent with the study of Brew (2010), which emphasized that teachers who value research as a tool for professional growth are more likely to engage in research-driven practices. Ilhan (2021) noted that positive attitudes toward research are critical in motivating teachers to pursue scholarly activities. Furthermore, Tamban and Maningas (2020) found that teachers' confidence in research is closely tied to their perceived usefulness of research in addressing classroom challenges.

The study by Samosa (2021) corroborates the importance of reducing research anxiety through targeted capacity-building programs. Similarly, Moral (2020) highlighted that fostering a positive predisposition toward research among educators can increase research productivity and improve teaching outcomes. Lastly, Mallillin et. al (2021) emphasized that addressing barriers like anxiety and resource limitations can significantly enhance teachers' research engagement.

These studies collectively support that while ALS teachers exhibit a generally positive attitude toward research, addressing specific challenges can further enhance their research involvement and contributions.

### Barriers of ALS Teachers in DepEd Region XI to Conducting Research

The findings reveal that the ALS teachers in DepEd Region XI experience high barriers to conducting research, as reflected in the overall mean. These barriers include constraints such as inadequate time, funding, resources, and research training, as well as challenges in statistical analysis and limited institutional support. The high level of perceived barriers indicates that despite teachers' awareness of research importance, practical challenges significantly impede their research engagement and productivity.

Several studies substantiate these findings. For instance, Zhou (2012) and Hussien et al. (2019) asserted that the lack of financial resources and limited access to research facilities remain persistent challenges for teachers, especially those in resource-limited contexts. Similarly, Chin et. al (2022) emphasized the detrimental impact of financial and time constraints, a lack of teacher motivation, and logistical support on teachers' ability to engage in research. A study by Callo (2023) also highlighted that limited exposure to research methodologies and statistical tools contributes to a lack of confidence and capability in research.

Moreover, Alviso and Tacadena (2023) argued that the absence of institutional encouragement and mentoring programs further exacerbates these challenges. Teachers in nonformal education systems often encounter additional barriers related to the unique demands of their roles (Malik et al., 2024). Li and Xu (2024) pointed out that fostering a supportive research culture and providing resources are critical to addressing these barriers. A study by Perez et al. (2022) advocated for policy reforms and capacity-building initiatives to empower educators in overcoming research-related obstacles.

### Significance of the Relationship Between Research Knowledge, Attitudes Toward Research, Barriers to Conducting Research, and Research Capability

The findings of the study revealed significant relationships between teachers' research knowledge, attitudes toward research, barriers to conducting research, and their overall research capability. Specifically, the correlation between research knowledge and research capability was moderate, whereas the relationships between research capability and attitudes and barriers to conducting research were weak. These results suggest that while knowledge is crucial in enhancing teachers' ability to conduct research, attitudes and barriers have a lesser yet significant impact.

A moderate relationship between research knowledge and research capability suggests that teachers with a stronger understanding of research methodologies, data analysis, and academic writing are more likely to demonstrate higher research capability. This is consistent with findings from Fongkanta et al. (2022), who emphasized that formal research training significantly enhances teachers'

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confidence and ability to conduct research. Similarly, Hine (2013), Lunenburg and Irby (2008) highlighted the critical role of research knowledge in improving teachers' research productivity and capability. Creswell and Creswell (2017) further supported this by noting that a solid grasp of research design and analysis is essential for conducting meaningful research. These findings underscore the importance of providing teachers with adequate research training and professional development to strengthen their research skills.

In contrast, the weak relationship between attitudes toward research and research capability indicates that while positive attitudes may motivate teachers to engage in research, they do not strongly translate into improved research capability. Papanastasiou (2005) found that although attitudes toward research are important, they do not directly correlate with research performance. Boud et al. (2014) echoed this sentiment, noting that enthusiasm for research alone is insufficient without practical skills and institutional support. Healey (2005) further argued that positive attitudes must be coupled with training and resources to enhance research capability. This suggests that while fostering a positive attitude toward research is beneficial, it should be complemented by efforts to build teachers' research skills and provide necessary resources.

Similarly, the weak relationship between barriers to conducting research and research capability suggests that perceived obstacles, such as lack of time, resources, or institutional support, do not strongly hinder teachers' research capability. Farzaneh et al. (2017) found that while barriers like time constraints are common, they do not necessarily prevent teachers from conducting research. Pessoa (2022) noted that motivated teachers often find creative solutions to overcome research challenges, and Veziari, Kumar, and Leach (2021) emphasized that institutional support can mitigate the impact of barriers. Murray and Male (2005) added that barriers can affect novice researchers more than experienced ones.

These findings imply that while barriers may pose challenges, they are not decisive in determining research capability, particularly for teachers who are highly motivated and skilled.

### **Influence of Research Knowledge, Attitudes Toward Research, and Barriers to Conducting Research on Research Capability**

The findings of the multiple regression analysis revealed that teachers' research knowledge, attitudes toward research, and barriers to conducting research significantly shape their research capability. The statistical model explains 35.50% of the variance in research capability. Research knowledge emerged as the most significant predictor, highlighting its strong positive effect on teachers' ability to conduct research. Although attitudes toward research were positively associated, their influence was weaker and not statistically significant. Similarly, barriers to research positively impacted the research capability, though this effect was insignificant, indicating that while barriers present challenges, their direct influence might be mitigated by other factors such as institutional support or professional growth opportunities.

These findings align with earlier studies. For instance, Saro and Taray (2024) emphasized that research knowledge is critical for teachers to navigate the complexities of research processes effectively. William et al. (2025) further illustrated how advanced training in research methodology enhances teachers' confidence and proficiency. Relatedly, Van der Linden et al. (2012) discussed the role of positive attitudes in fostering sustained interest in research, while Krischler et al. (2018) noted that attitudes alone may not suffice without adequate skills. Regarding barriers, Shrestha et al. (2021) highlighted systemic issues such as limited resources and institutional support as significant hindrances. Moreover, Haeger and Fresquez (2016) asserted that access to mentorship and research networks can help teachers overcome these challenges.

Addressing these aspects requires a multifaceted approach. Murray and Vanassche (2019) noted that research capability can be improved through capacity-building programs focusing on technical knowledge. Delosa et al. (2024) recommended that schools foster a culture that values research by addressing barriers and providing incentives. With these efforts, teachers can effectively contribute to educational innovation and evidence-based practice.

### **Implications for Educational Practice**

**Research Knowledge.** Developing teachers' research knowledge is crucial for fostering evidence-based practices in education. The significant influence of research knowledge on teachers' research capability implies a need for targeted professional development programs that enhance their understanding of research concepts, methodologies, and applications. According to Bullo et al. (2021), workshops and training sessions focusing on practical skills, such as data analysis and review, are essential to empower teachers to engage in scholarly activities effectively.

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Integrating research components into teacher preparation programs can ensure that educators develop the foundational knowledge required to conduct meaningful studies. Cordingley (2015) emphasized the importance of scaffolding research learning in teacher education to instill confidence and competence. Schools can further support this by providing access to online courses and resources on advanced research techniques, enabling teachers to stay updated on current methodologies.

Moreover, teachers' collaboration through research communities can facilitate knowledge sharing and peer learning. Schleifer et al. (2017) argued that a collaborative approach helps educators overcome challenges and deepen their understanding of research. Schools should establish research mentoring programs to guide teachers through the intricacies of conducting research projects.

Finally, aligning research training with educators' specific needs ensures that acquired knowledge is directly applicable to their classroom practices. Bongcayao (2023) suggested that contextualized training sessions focused on action research can bridge the gap between theory and practice, enabling teachers to address classroom challenges effectively.

**Attitude Toward Research.** The high positive attitudes toward research indicate a strong potential for cultivating a research culture in schools. Teachers who perceive research as useful for their professional growth and instructional practices are more likely to engage in scholarly activities. Schleifer et al. (2017) highlight the practical benefits of research, such as improving student outcomes, which can motivate teachers to participate in research initiatives.

Addressing research anxiety is also essential to sustaining positive attitudes. As Fernandez et al. (2019) identified, anxiety often stems from a lack of experience or confidence in conducting research. Providing teachers with structured support systems, such as mentorship and access to research tools, can alleviate their apprehensions and encourage active participation in research activities.

Schools can further enhance teachers' attitudes by recognizing and rewarding research efforts. Recognition programs, such as awards for outstanding research projects, can reinforce the value of research and inspire teachers to contribute. Kyaw (2021) emphasized the role of institutional support in fostering a positive research climate within schools.

Professional development programs should also address misconceptions about research, emphasizing its relevance to daily teaching practices. Henning et al. (2009) suggested that engaging teachers in action research projects directly linked to their instructional strategies can foster a deeper appreciation for research's transformative potential.

**Barriers to Conducting Research.** The identification of significant barriers, such as limited resources, time constraints, and lack of training, highlights the need for systemic changes to support teachers in conducting research. Addressing these barriers requires schools and policymakers to prioritize the allocation of funds and resources for research initiatives. Abdelazeem et al. (2022) argued that providing financial incentives and access to research facilities can reduce the burden on teachers and encourage greater participation.

Time management strategies, such as dedicated research days or reduced teaching loads, can help alleviate the challenge of balancing teaching responsibilities with research activities. According to Chase et al. (2013), creating structured schedules that allocate time for research can enhance productivity and reduce stress.

Strengthening institutional support is another critical step. Establishing research offices within schools to assist teachers in planning and implementing their studies can provide guidance and encouragement. Gonzales et al. (2020) noted that schools with active research support systems report higher teacher engagement in research.

Furthermore, fostering a supportive school culture that values research can mitigate barriers related to limited encouragement and a lack of collaboration. Baporikar (2015) recommended organizing regular research symposia, practical aspects of research, and collaborative projects to build a sense of community and shared purpose among educators.

**Research Capability.** Enhancing teachers' research capability is pivotal for driving innovation and evidence-based decision-making in education. Schools must invest in capability-building programs that equip teachers with the necessary skills and knowledge to conduct research effectively. According to Karunathna et al. (2024), these programs should include hands-on training in data collection, analysis, and dissemination techniques.

The significant relationship between research capability and knowledge underscores the importance of continuous learning opportunities for teachers. Kucukaydin and Gokalp (2021) noted that offering graduate-level courses or certification in research methodology can further develop teachers' expertise and confidence.

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Incorporating research as a key component of school improvement plans can also elevate teachers' engagement and capability. Ocampo et al. (2022) highlighted the role of institutional priorities in driving research productivity among educators. Schools should establish clear policies and guidelines that promote teacher-led research initiatives.

Lastly, fostering partnerships with universities and research institutions can provide teachers with access to advanced resources and collaboration opportunities. Chase et al. (2013) emphasized the benefits of such partnerships in bridging the gap between theory and practice, ultimately enhancing teachers' research capability and its impact on educational outcomes.

### V. CONCLUSION

The study finds that ALS teachers in DepEd Region XI demonstrate a moderate level of research capability, influenced by their research knowledge, attitudes, and barriers to conducting research. The research capability of teachers was assessed across three key indicators: conceptual skills, computational skills, and technical skills. Among these, computational skills were rated the highest at a high level. Both conceptual skills and technical skills were rated at a moderate level.

Research knowledge of teachers was rated at a high level, reflecting their adequate understanding of essential research principles, methodologies, and ethics. However, gaps in advanced knowledge areas, such as research design and statistical software utilization, suggest the need for targeted training programs.

Their attitude toward research was also assessed at a high level, with strong positive predispositions and recognition of research usefulness. However, a moderate level of research anxiety indicates a potential barrier to active participation in research activities.

The barriers to conducting research were rated as high, with the most significant constraints being limited time, funding, training, and access to resources. These systemic challenges underscore the importance of institutional support in fostering an enabling research environment.

Statistical analysis revealed significant relationships between knowledge, attitudes, and barriers to conducting research with research capability. Multiple regression analysis identified research knowledge as the strongest predictor of teachers' research capability, while attitudes and barriers showed minimal direct influence.

### VI. RECOMMENDATIONS

Based on the findings of the study, the following recommendations are proposed:

To enhance the research capability of ALS teachers in DepEd Region XI, it is recommended that the Department of Education, particularly its leadership and policymaking units, implement targeted professional development programs tailored to their specific needs. Workshops should focus on conceptual skills, such as identifying research problems and developing conceptual frameworks, while hands-on training in computational skills should emphasize statistical analysis and the use of tools like SPSS and Excel. To strengthen technical skills, sessions on proper data handling, citation practices, and research writing mechanics, alongside tutorials on advanced tools like NVivo and Mendeley, are essential.

To improve teachers' research knowledge, targeted workshops and training should be conducted on critical areas such as research design, statistical analysis, conceptual framework formulation, and data interpretation. These efforts can be supported by developing and distributing user-friendly research manuals tailored to the needs of ALS teachers. Establishing mentoring programs where experienced researchers guide teachers through the research process, from conceptualization to publication, will further strengthen their knowledge and confidence in conducting research.

Fostering a positive attitude toward research is equally essential. Organizing seminars that highlight successful research projects and their impact on teaching practices can reinforce the value of research. To reduce research anxiety, stress management sessions and accessible support systems, such as regular consultations with research experts, may be provided. Additionally, recognizing and rewarding teachers who actively engage in research through incentives, awards, or professional advancement opportunities can help motivate others to develop a predisposition toward research.

Addressing barriers to conducting research is crucial to empowering ALS teachers. Increasing resource allocation by advocating for additional funding and equipment, such as statistical software and journal access, can significantly reduce challenges. Time management support, such as providing flexible teaching schedules or reduced teaching loads for teachers involved in research, can allow them to dedicate sufficient time to their projects. Training sessions focusing on research ethics, methodologies, and publication processes will enhance teachers' familiarity and reduce obstacles.



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Finally, institutional research support may be strengthened. Establishing a school-level research center can provide technical assistance and administrative support while monitoring research progress. Collaborations with universities or research organizations may be encouraged to offer opportunities for collaborative research and advanced training. Furthermore, fostering a research-friendly environment through school-based research congresses, peer collaboration, and knowledge-sharing platforms will cultivate a collaborative and supportive research culture. Integrating research findings into teaching practices can also be encouraged by guiding teachers in conducting action research to address classroom challenges and improve instructional strategies. These measures will empower ALS teachers to enhance their research capabilities and contribute meaningfully to the advancement of the ALS program.

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