

RELATIONSHIP BETWEEN TEACHER QUALIFICATION AND ACADEMIC ACHIEVEMENT OF SENIOR HIGH SCHOOL STUDENTS WITH NATIONAL ACHIEVEMENT TEST RESULTS IN WIKA AT KOMUNIKASYON

Edmark Ian L. Cabio, Marissa L. Salgado, Catherine T. Eliaga, Vincent L. Banot

Department of Education, Division of Negros Oriental
Negros Oriental State University, Negros Oriental, Philippines
Email: vincent.liloonline01@gmail.com

ABSTRACT: This study investigated the relationship between teacher qualification and academic performance with National Achievement Test (NAT) results in Wika at Komunikasyon among Grade 12 students in public senior high schools in the Dumaguete City Division. The research aimed to determine whether students' general weighted averages and the specialization of teachers (Filipino major vs. non-major) were associated with NAT performance in Problem Solving, Information Literacy, and Critical Thinking. Results showed that student academic performance was generally high, with a mean of 86.83 described as Very Satisfactory. However, the NAT results indicated lower performance, particularly in Problem Solving (mean MPS = 41.70) and Critical Thinking (mean MPS = 46.10), both categorized as Low Proficient. Only Information Literacy (mean MPS = 52.26) reached the Nearly Proficient level. Correlation analysis revealed a high but not statistically significant relationship between academic performance and NAT Problem Solving scores ($r = 0.755$, $p = 0.082$). Meanwhile, the correlation between academic performance and both Information Literacy and Critical Thinking was moderate and low, respectively, and not significant. Notably, a high and statistically significant relationship was found between teacher qualification and NAT Problem Solving scores ($r = 0.845$, $p = 0.034$), suggesting that teacher specialization may influence student outcomes in this area. The study concludes that teacher qualification, particularly in Filipino, is a critical factor in enhancing student performance in NAT, especially in Problem Solving. Recommendations include assigning Filipino majors to teach Wika at Komunikasyon and aligning instruction with NAT competencies.

Keywords: Teacher Qualification, Academic Performance, National Achievement Test, Wika at Komunikasyon, senior high school.

1. INTRODUCTION

The quality of education in any nation is significantly shaped by the qualifications of its teachers and the academic preparedness of its learners. In the Philippines, the Department of Education (DepEd) administers the National Achievement Test (NAT) to assess the competency levels of students in various subject areas, including Wika at Komunikasyon at the senior high school level. The NAT serves as a standardized measure of how well learners have achieved curriculum-based competencies, with specific attention to the domains of Problem Solving, Information Literacy, and Critical Thinking [1; 2].

Despite numerous reforms and investments in basic education, disparities in student performance on standardized assessments continue to raise questions about teacher deployment and instructional alignment. In the 2024 administration of the NAT for Grade 12, one senior high school in Dumaguete City Division posted the lowest performance in Wika at Komunikasyon across the division. Notably, this school scored below the regional MPS of 38.33 and the national MPS of 37.90, particularly underperforming in the Problem Solving component [3]. These results highlight an urgent need to reassess instructional delivery, especially considering that none of the teachers handling Wika at Komunikasyon in the said school are Filipino majors, a factor that may influence both content mastery and teaching effectiveness.

Research has long established that teacher qualifications significantly influence student academic outcomes [4; 5]. Teachers who are adequately trained and possess relevant subject expertise are better equipped to deliver instruction aligned with curricular goals, foster higher-order thinking,

and respond to diverse student needs [6; 7]. Conversely, a mismatch between teachers' academic specialization and the subject taught can compromise instructional quality and student comprehension, as shown in studies from both the local and international contexts [8; 9].

Moreover, the predictive value of academic performance on NAT outcomes has been observed across disciplines. Casildo [1] emphasized that academic grades, particularly when aligned with NAT competencies, are strong indicators of test performance. However, discrepancies may still arise due to external factors, including instructional quality and assessment alignment. This calls into question the sufficiency of academic performance alone in forecasting NAT success, especially in linguistically and cognitively demanding subjects like Wika at Komunikasyon [10].

Given this context, this study explores the relationship between teacher qualification and student academic achievement with NAT results in Wika at Komunikasyon among senior high school students in the Dumaguete City Division. It specifically investigates whether the teachers' area of specialization (Filipino major vs. non-major) and the students' academic performance in the subject are significantly associated with NAT outcomes in the three assessed components: Problem Solving, Information Literacy, and Critical Thinking.

Specifically, it purports to shed light to the following questions:

1. What is academic performance of public senior high schools of Dumaguete City division in Wika at Komunikasyon?

2. What is the National Achievement test mean percentage score (MPS) of public senior high schools of Dumaguete City division in Wika at Komunikasyon in terms of:

- 2.1 Problem Solving;
- 2.2 Information Literacy; and
- 2.3 Critical Thinking?

3. Is there a relationship between the academic performance and the National Achievement test mean percentage score (MPS) in Wika at Komunikasyon in terms of:

- 3.1 Problem Solving;
- 3.2 Information Literacy; and
- 3.3 Critical Thinking?

4. What is the distribution of teacher qualifications (Filipino major vs. non-major) among those handling Wika at Komunikasyon in public senior high schools of Dumaguete City division?

5. Is there a relationship between the distribution of teacher qualifications (Filipino major vs. non-major) and NAT performance in Wika at Komunikasyon in terms of:

- 5.1 Problem Solving;
- 5.2 Information Literacy; and
- 5.3 Critical Thinking?

6. What is the difference between the Academic Performance and NAT results in Wika at Komunikasyon in the three components?

7. What is the difference between the distribution of teacher qualifications (Filipino major vs. non-major) and NAT performance in Wika at Komunikasyon in the three components?

8. What recommendations can be proposed to improve the academic performance and National Achievement Test (NAT) mean percentage scores in Wika at Komunikasyon of public senior high schools of Dumaguete City division?

2. REVIEW OF RELATED LITERATURE

Teacher Qualifications and Student Achievement

Teacher qualification has long been recognized as a critical variable in explaining student achievement across academic disciplines. Numerous studies have concluded that students tend to perform better when instructed by teachers who are academically prepared and professionally qualified in the subjects they teach [4, 11; 5]. Yasin [6] emphasized that teachers with formal qualifications, certifications, and relevant teaching experience contribute significantly to learners' cognitive development, particularly in core subjects. In the context of science and mathematics, the influence of teacher qualifications is even more pronounced. Studies by Gyeltshen [12], Etebu and Amatari [13], and Shedrack and Nduudee [14] collectively demonstrated that highly qualified teachers yield more substantial student gains in achievement tests. Likewise, Amadi and Anerio [7] found that teachers' educational background and professional preparation significantly predict their classroom performance and effectiveness. Mismatch between teacher qualifications and subjects taught is particularly detrimental to student outcomes, especially in linguistically demanding subjects such as Filipino [8].

Academic Performance as a Predictor of NAT Outcomes

Academic performance has also been closely linked to standardized assessment scores. Casildo [1] developed a

predictive model using academic grades to estimate student performance in the National Achievement Test (NAT), affirming the role of subject-specific proficiency in shaping NAT outcomes. Ojastro *et al.* [2] further demonstrated the weak correlation between general academic performance and NAT scores in science and math, suggesting a gap in instructional effectiveness or curriculum alignment.

This predictive relationship has also been supported through machine learning and data mining approaches. Feng *et al.* [15] and López-Zambrano *et al.* [16] used classification models and clustering algorithms to forecast student outcomes, affirming that assessment scores and prior academic records are reliable predictors of NAT performance, especially when combined with indicators of student engagement.

Language of Instruction and Teaching Alignment

The language of instruction plays a fundamental role in academic achievement, particularly in subjects like Wika at Komunikasyon. Bernhofer and Tonin [17] found that learning in a non-native language can negatively affect comprehension and assessment performance. This is particularly relevant in schools where teachers handling Filipino subjects are not Filipino majors. Similarly, Delos Reyes, et al. [18] identified transitional challenges for English-speaking learners in acquiring Filipino proficiency, underscoring the need for teachers with specialization in Filipino.

To bridge instructional gaps, Bacio and Sagge [19] developed and evaluated an instructional package for Komunikasyon at Pananaliksik, highlighting the role of curriculum-anchored interventions in improving students' mastery of learning competencies.

International and Local Evidence on Teacher Effectiveness

Globally, the literature affirms that qualified teachers are instrumental in boosting academic outcomes. Tatar and Düşteğör [20] and Filgona and Sakiyo [21] highlighted the predictive power of qualifications in subjects like science and geography. In Nigeria, Yasin [6], Obeka [9], and Okose and Obiunu [22] observed that teacher education and experience were significantly related to student success in both basic and secondary education levels.

Locally, Reyno and Guzman [10] emphasized the impact of management practices and instructional support on NAT performance. Their findings align with those of Amatari and Etebu [13], who advocate for policy reforms focusing on teacher competency and instructional delivery.

Mismatch Between Teacher Qualification and Subject Taught

A growing body of research investigates the adverse impact of assigning teachers to subjects outside their specialization. Guiaselon et al [8] found that this mismatch significantly lowered students' NAT scores, particularly in English and Filipino subjects. Omaliko and Okpala [23] and Yakubu [24] further reinforced that teacher specialization in the subject area is essential for delivering competent instruction and improving test outcomes.

This finding is echoed in ICT and data-driven studies by Alhassan, Zafar, and Mueen [25], who concluded that no matter how sophisticated prediction models may be, their

effectiveness is compromised if instruction is delivered by underqualified or mismatched teachers.

3. SIGNIFICANCE OF THE STUDY

This study is significant as it explores the intersection of teacher qualification, student academic performance, and standardized assessment outcomes, particularly the National Achievement Test (NAT) in Wika at Komunikasyon. In doing so, it aims to provide evidence-based insights that can inform education policy, classroom practice, and teacher deployment strategies.

For the Department of Education and Policy Makers

Findings from this research will be valuable to the Department of Education (DepEd) in evaluating and refining teacher deployment policies. It may prompt the reassignment or retraining of teachers to ensure that Filipino subjects are taught by those with appropriate specialization, thereby enhancing content delivery and student learning outcomes. The results can also guide reforms aligned with the MATATAG agenda, emphasizing quality teaching and learning.

For School Administrators

School heads and administrators will gain deeper understanding of how the qualifications and specialization of their teaching personnel affect NAT outcomes. Such insights can lead to more strategic teacher hiring, class assignments, and professional development planning, especially for linguistically intensive subjects like Wika at Komunikasyon.

For Teachers

This study may encourage non-Filipino major teachers to pursue professional development or post-graduate training in Filipino to improve instructional quality. Furthermore, it underscores the importance of subject mastery and academic alignment in fostering learner achievement, particularly in national assessments.

For Students

Indirectly, the study benefits students by advocating for more qualified and specialized instruction in Filipino. Improved teaching quality may lead to better engagement with Wika at Komunikasyon, enhanced critical thinking and communication skills, and stronger performance in the NAT.

4. METHODOLOGY

Research Design

This study employed a quantitative correlational research design to examine the relationship between teacher qualifications, student academic performance, and National Achievement Test (NAT) results in Wika at Komunikasyon. The design was chosen to statistically determine the extent to which teacher specialization (Filipino major vs. non-major) and students' academic performance relate to NAT outcomes in the components of Problem Solving, Information Literacy, and Critical Thinking.

Research Locale and Participants

The study was conducted in six public senior high schools in the Dumaguete City Division, Negros Oriental, Philippines. The respondents included:

Grade 12 students who took the 2024 NAT in Wika at Komunikasyon.

Teachers handling Wika at Komunikasyon in the said schools.

Purposive sampling was used to select the schools based on their inclusion in the NAT 2024 data and the availability of complete teacher and academic performance records.

Research Instruments

The study utilized the following instruments:

Academic Performance Records – General Weighted Averages (GWAs) of students in Wika at Komunikasyon were obtained from school records and categorized based on DepEd grading descriptors.

NAT Mean Percentage Scores (MPS) – Official NAT 2024 results in Wika at Komunikasyon were collected from the division office. Scores were disaggregated into three components: Problem Solving, Information Literacy, and Critical Thinking.

Teacher Qualification Matrix – A profiling tool was used to categorize teachers based on specialization (Filipino major vs. non-major), teaching load, and academic background.

Data Collection Procedure

Formal permission was obtained from the Division Office and school principals prior to data collection. Academic performance data and NAT results were retrieved from school records and validated against official DepEd releases. Teacher qualification data were gathered through HR records and confirmed via interviews with school heads.

Statistical Treatment of Data

The following statistical tools were used:

Descriptive Statistics (mean, frequency, and percentage) to summarize academic performance, NAT results, and teacher qualifications.

Pearson Product-Moment Correlation Coefficient was applied to analyze the relationship between academic performance and NAT scores in normally distributed variables.

Spearman Rank-Order Correlation was used for variables that did not meet normality assumptions.

p-values were set at 0.05 level of significance to determine statistical significance.

Interpretation of Correlation Strength followed the scale adapted from Calmorin (ranging from negligible to very high correlation).

Ethical Considerations

The study adhered to ethical research standards. All data collected were treated with confidentiality, and no personally identifiable information was disclosed. Participation of school personnel was voluntary, and informed consent was secured for all data-sharing activities.

Scope and Limitations

This study has several limitations. Geographically, it is limited to public senior high schools in Dumaguete City Division and does not include private schools or schools from other regions, which may limit the generalizability of the findings. The study includes only six schools, which may not fully represent the diversity of teaching practices, teacher qualifications, or student populations found in broader contexts. Moreover, the research relied on existing records and data, which may be subject to reporting inconsistencies or documentation gaps. Additionally, the research does not control for other possible influencing variables such as

students' socio-economic background, access to learning materials, school resources, or levels of parental involvement, all of which could affect academic and NAT performance.

RESULTS AND DISCUSSION

Table 1 Academic Performance of Public Senior High Schools of Dumaguete City Division in Wika at Komunikasyon

School	General Weighted Average	Description
1	82.26	Satisfactory
2	84.77	Very Satisfactory
3	85.90	Very Satisfactory
4	93.86	Outstanding
5	86.18	Very Satisfactory
6	88.02	Very Satisfactory
Mean	86.83	Very Satisfactory

Legend:

DESCRIPTOR	GRADING SCALE
Outstanding	90-100
Very Satisfactory	85-89
Satisfactory	80-84
Fairly Satisfactory	75-79
Did Not Meet Expectations	Below 75

*Department of Education

Table 1 presents the General Weighted Averages (GWA) of Grade 12 students in Wika at Komunikasyon across six public senior high schools in the Dumaguete City Division. The results show that all schools attained at least a "Satisfactory" performance, with School 1 earning a GWA of 82.26. Schools 2, 3, 5, and 6 posted GWAs ranging from 84.77 to 88.02, which fall under the "Very Satisfactory" category. School 4 achieved an "Outstanding" average of 93.86. The overall mean GWA across all six schools is 86.83, interpreted as "Very Satisfactory" based on the Department of Education's grading scale.

The findings reflect that students in the division generally perform well in classroom-based assessments for Wika at Komunikasyon. According to Casildo [1], academic performance provides important insight into learners' content mastery and preparedness within the formal school setting. However, classroom performance does not always align with outcomes in standardized assessments, which often require higher-order thinking skills such as analysis and problem-solving. This observation is supported by Ojastro, et.al [2], who found a gap between academic performance and NAT results in Science and Mathematics, indicating a potential misalignment between instructional delivery and national assessment standards.

The strong classroom performance may be attributed to structured instructional practices and formative evaluations conducted by teachers. Nonetheless, the effectiveness of these practices may depend on the teachers' subject expertise. Geoffrey, et al. [5] emphasized that subject specialization has a significant influence on how content is delivered and understood. In the case of Wika at Komunikasyon, a subject rich in linguistic and cultural contexts, the importance of having teachers who are Filipino majors is [4]. Guiaselon et al. [8] reported that a mismatch between teacher qualification and subject taught negatively affects NAT outcomes, particularly in language subjects.

The exceptional performance of School 4, which recorded an "Outstanding" mean GWA, may suggest the presence of well-aligned instructional strategies, better teaching competence,

or stronger learner support systems. Meanwhile, the lower performance of School 1, though still within the "Satisfactory" range, may indicate areas that require pedagogical reinforcement. According to Laghari, Chachar, and Gopang [28], disparities in student performance often reflect variations in teacher quality, access to resources, and instructional consistency.

Obeka [9] and Filgona and Sakiyo [21] both concluded that student performance is not solely a reflection of ability, but also of the quality of teaching, which includes subject expertise and pedagogical competence.

Table 2 National Achievement Test Mean Percentage Score (MPS) of Public Senior High Schools of Dumaguete City Division in Wika at Komunikasyon in Terms of Problem Solving, Information Literacy, and Critical Thinking

National Achievement test mean percentage score (MPS)

School	Problem Solving	Description	Information Literacy	Description	Critical Thinking	Description
1	41.07	Low	47.91	Low	43.38	Low
2	37.48	Proficient	44.87	Low	40.01	Proficient
3	40.04	Low	47.58	Proficient	43.66	Low
4	52.38	Proficient	77.52	Proficient	65.74	Nearly Proficient
5	41.99	Low	47.62	Low	42.48	Low
6	37.23	Proficient	48.08	Low	41.31	Low
Mean	41.70	Low Proficient	52.26	Nearly Proficient	46.10	Low Proficient

Legend:

Levels of Proficiency	MPS	Descriptions
Highly Proficient	90-100	At this level, the students are highly capable of solving problems, managing and communicating accurate information, and analyzing and evaluating data to create/formulate ideas.
Proficient	75-89	At this level, students are skilled in solving problems, managing and communicating information, and analyzing and evaluating data to create/formulate ideas.
Nearly Proficient	50 - 74	At this level, students met the minimum level of skills in solving problems, managing and communicating information, and analyzing and evaluating data to comprehend ideas.
Low Proficient	25-49	At this level, students can identify strategies in solving problems, differentiate and organize information.
Not Proficient	0-24	At this level, students can solve simple problems, classify and identify the source of information.

Table 2 shows the National Achievement Test (NAT) mean percentage scores (MPS) of six public senior high schools in Dumaguete City Division in the subject Wika at Komunikasyon, disaggregated into three components: Problem Solving, Information Literacy, and Critical Thinking. The data reveal that five out of six schools scored within the "Low Proficient" range across all three components. Only School 4 demonstrated relatively stronger performance, achieving a "Nearly Proficient" rating in Problem Solving and Critical Thinking, and reaching a "Proficient" level in Information Literacy.

The overall mean MPS for Problem Solving is 41.70, which is interpreted as "Low Proficient." This suggests that, on average, students are able to identify strategies to solve problems but may lack the deeper analytical skills required for higher performance. In Information Literacy, the mean MPS is 52.26, placing the division at the "Nearly Proficient" level. This is the only component with a mean performance slightly above the minimum proficiency threshold, indicating that students are somewhat capable of managing and communicating information but may still struggle with consistency and depth. The mean MPS for Critical Thinking is 46.10, also classified as "Low Proficient," reflecting limited ability to analyze, evaluate, and formulate ideas.

These findings echo the observations of Ojastro, *et. al.* [2] who reported that despite satisfactory academic performance at the school level, students often perform poorly in standardized tests, particularly in components requiring higher-order thinking skills. The NAT performance indicates a gap between classroom-based instruction and the competencies assessed in national exams. As Casildo [1] emphasized, academic performance alone is insufficient to predict success in standardized testing, especially when assessments demand cognitive flexibility, problem-solving, and data analysis.

The strong NAT performance of School 4, particularly in Information Literacy where it scored 77.52, highlights the potential impact of effective teaching strategies and possibly more qualified or experienced teachers. According to Guiaselon *et al.* [8], the alignment of teacher specialization with the subject being taught is a key factor influencing NAT outcomes. In contrast, schools with lower NAT scores may be experiencing the negative effects of subject-teacher mismatch, limited instructional resources, or insufficient preparation for test-taking skills. Obeka [4] and Lopez-Zambrano *et al.* [16] emphasized the role of instructional strategies that foster independent thinking and comprehension as essential to improving standardized test performance.

Table 3 Relationship Between the Academic Performance and the National Achievement Test Mean Percentage Score (MPS) in Wika at Komunikasyon in Terms of Problem Solving, Information Literacy, and Critical Thinking

NAT vs Academic Performance	Method	Correlation	p-value	Interpretation
Problem Solving	Pearson	0.755	0.082	High, Not Significant
Information Literacy	Spearman	0.657	0.156	Moderate, Not Significant
Critical Thinking	Spearman	0.314	0.544	Low, Not Significant

*Adapted from Calmorin

An $r \pm 0.00$ denotes zero correlation.

An r from 0.01 to ± 0.20 denotes negligible correlation

An r from ± 0.21 to ± 0.40 denotes low or slight relationship.

An r from ± 0.41 to ± 0.70 indicates marked or moderate correlation.

An r from ± 0.71 to ± 0.90 shows high relationship.

An r from ± 0.91 to ± 0.99 denotes very high correlation.

An $r \pm 1.0$ indicates perfect relationship.

Table 3 presents the correlation between the academic performance of students and their National Achievement Test (NAT) scores in Wika at Komunikasyon, specifically across the three cognitive components: Problem Solving, Information Literacy, and Critical Thinking. The data indicate a high positive correlation ($r = 0.755$) between academic performance and NAT Problem Solving scores. However, the relationship is not statistically significant ($p = 0.082$), suggesting that while students with higher academic grades tended to perform better in the NAT Problem Solving component, the association is not strong enough to generalize across the population.

In the case of Information Literacy, a moderate correlation ($r = 0.657$) was observed, but again the result was not statistically significant ($p = 0.156$). This indicates a general trend where academic achievers performed better in processing and managing information as assessed by the NAT, but this trend was not consistent enough to be

considered a reliable predictor. Lastly, for the Critical Thinking component, a low correlation ($r = 0.314$) with a p -value of 0.544 was found, implying minimal alignment between classroom performance and students' abilities to analyze and evaluate ideas in the NAT.

These findings underscore the gap between internal academic assessment and external standardized evaluations. According to Casildo [1], while academic grades often reflect subject mastery based on classroom instruction and teacher-developed assessments, standardized tests like the NAT demand higher-order cognitive skills that may not always be emphasized in daily instruction. This mismatch might explain the lack of significant correlation between academic grades and NAT results in this study.

Furthermore, Ojastro, *et. al* [2] emphasized that student success in national assessments requires more than content familiarity, it demands test readiness, strategic thinking, and exposure to assessment formats. The insignificant correlation between academic performance and Critical Thinking scores further aligns with their observation that traditional assessments may not adequately capture analytical and evaluative skills.

Overall, while there are positive trends linking academic performance to NAT outcomes in Wika at Komunikasyon, particularly in Problem Solving and Information Literacy, the lack of statistical significance suggests the need to recalibrate instructional strategies and assessment practices. It is imperative to bridge the divide between classroom instruction and standardized expectations by embedding critical thinking, problem-solving, and information literacy tasks into regular academic activities, as supported by Obeka [9] and Guiaselon *et al.* [8]. Doing so may better equip students for national assessments and elevate overall academic quality.

Table 4 Distribution of Teachers (Filipino major vs. non-major) among those handling Wika at Komunikasyon in public senior high schools of Dumaguete City division

School	Number of Wika at Komunikasyon Teachers	Filipino Majors	Non-Filipino Majors	Percent of Filipino Majors
1	1	1	0	100
2	3	1	2	33.33
3	2	2	2	100
4	1	1	1	100
5	2	2	2	100
6	6	0	6	0

Table 4 illustrates the distribution of teachers handling Wika at Komunikasyon across six public senior high schools in Dumaguete City Division, categorizing them based on whether they are Filipino majors or not. Of the total teaching force assigned to the subject, the percentage of Filipino majors varies considerably by school. Schools 1, 3, 4, and 5 exhibit full alignment between subject taught and teacher specialization, with 100% of their Wika at Komunikasyon instructors being Filipino majors. In contrast, School 2 shows a notable mismatch, with only one out of three teachers (33.33%) having a Filipino specialization. Most critically, School 6 demonstrates a complete mismatch, as all six teachers assigned to teach Wika at Komunikasyon are non-Filipino majors. This uneven distribution raises concerns regarding subject-matter expertise, which has been shown to

significantly affect instructional effectiveness and student learning outcomes. Guiaselon *et al.* [8] emphasized that mismatches between teacher qualifications and subject taught are linked to lower performance in national assessments, particularly in language subjects where deep disciplinary knowledge is crucial. Similarly, Obeka [9] noted that professionally qualified teachers, especially those with specialization in the subject area, are more likely to foster better academic performance and positive attitudes in language learning due to their stronger content mastery and pedagogical competence.

The situation in School 6 is particularly alarming, as it lacks any Filipino-major teachers despite offering a subject that requires nuanced understanding of Filipino linguistics, culture, and communication. This aligns with findings by Onumonu and Okeke [29], who asserted that subject specialization is a significant determinant of instructional quality, particularly in language-rich disciplines. Schools with lower percentages of qualified Filipino teachers may be at a disadvantage, potentially impacting not only student academic achievement but also performance in standardized assessments such as the National Achievement Test.

The data thus underscore the need for strategic teacher deployment and hiring policies that ensure subject-teacher alignment, especially in core subjects like Wika at Komunikasyon. As supported by Guiaselon *et al.* [8], strengthening qualifications among teaching personnel is a critical step toward improving instructional delivery and, ultimately, elevating student outcomes in both classroom and national assessments.

Table 5 Relationship between the distribution of teacher qualifications (Filipino major vs. non-major) and NAT performance in Wika at Komunikasyon in terms of Problem Solving, Information Literacy, and Critical Thinking

NAT vs Teacher Qualifications	Method	Correlation	p-value	Interpretation
Problem Solving	Spearman	0.845	0.034	High, Significant
Information Literacy	Spearman	0.068	0.899	Negligible, Not Significant
Critical Thinking	Spearman	0.778	0.069	High, Not Significant

*Adapted from Calmorin

An $r \pm 0.00$ denotes zero correlation.

An r from 0.01 to ± 0.20 deals on negligible correlation

An r from ± 0.21 to ± 0.40 denotes low or slight relationship.

An r from ± 0.41 to ± 0.70 indicates marked or moderate correlation.

An r from ± 0.71 to ± 0.90 shows high relationship.

An r from ± 0.91 to ± 0.99 denotes very high correlation.

An $r \pm 1.0$ indicates perfect relationship.

Table 5 presents the Spearman correlation results examining the relationship between the distribution of teacher qualifications (Filipino major vs. non-major) and student performance in the National Achievement Test (NAT) for Wika at Komunikasyon, specifically across the components of Problem Solving, Information Literacy, and Critical Thinking. The data reveal a high and statistically significant correlation between teacher qualification and NAT performance in Problem Solving ($r = 0.845$, $p = 0.034$). This suggests that schools with a higher proportion of Filipino-major teachers tend to have significantly better outcomes in

the Problem Solving component of the NAT. This finding resonates with the study by Guiaselon *et al.* [8], which found that subject-teacher alignment plays a critical role in shaping student performance, particularly in language assessments requiring analytical and contextual interpretation.

For the Information Literacy component, however, the correlation was negligible ($r = 0.068$, $p = 0.899$), indicating no meaningful relationship between teacher specialization and student performance in this domain. Likewise, a high but not statistically significant correlation ($r = 0.778$, $p = 0.069$) was observed between teacher qualification and the Critical Thinking component, suggesting a potential influence that warrants further investigation, although it does not meet the threshold for statistical significance in this dataset.

These findings affirm the importance of specialized teacher training and assignment, especially in language subjects where depth of understanding and pedagogical content knowledge are essential. As Obeka [9] emphasized, teacher qualifications significantly determine students' academic outcomes and attitudes toward language learning. The results also align with Onumonu and Okeke [29], who argued that specialization in the subject being taught leads to more effective instruction and improved assessment performance.

The significant relationship in Problem Solving outcomes suggests that content mastery among Filipino-major teachers equips them with better strategies to scaffold students' analytical thinking, a crucial skill assessed in NAT. Conversely, the lack of significant associations in Information Literacy and Critical Thinking components may reflect a broader need for enhanced professional development even among Filipino majors, or the influence of other variables such as instructional strategies, access to resources, or students' prior knowledge.

In sum, the analysis underscores the critical role of teacher qualification, especially content specialization, in influencing student performance in standardized assessments. It also signals the need for policy reforms that prioritize proper teacher deployment, particularly for language subjects in senior high school education [8; 9; 29].

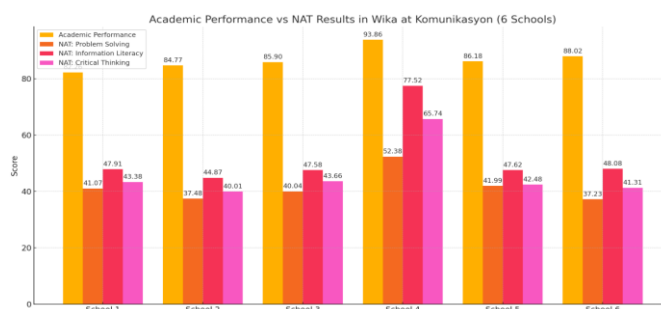


Figure 1 Difference between the Academic Performance and NAT results in Wika at Komunikasyon in the three components

Figure 1 presents the comparison between the academic performance and National Achievement Test (NAT) results in Wika at Komunikasyon across six public senior high schools in Dumaguete City Division. The data highlights four key measures: Academic Performance, NAT: Problem

Solving, NAT: Information Literacy, and NAT: Critical Thinking.

The academic performance of the students is consistently high, with general weighted averages ranging from 82.26 to 93.86. Most schools fall within the "Very Satisfactory" to "Outstanding" categories based on the Department of Education grading scale. However, a visible gap is observed when these grades are compared to the NAT scores. Across all schools, the NAT results in Problem Solving, Information Literacy, and Critical Thinking generally fall in the "Low Proficient" to "Nearly Proficient" range.

For example, School 4 shows the highest academic performance at 93.86 and also registers the highest NAT scores, yet the Problem Solving component only reaches 52.38, which is classified as "Nearly Proficient." Similarly, School 6, with an academic performance of 88.02, records only 37.23 in Problem Solving, which remains in the "Low Proficient" range. This pattern is consistent across most schools.

These disparities indicate that academic grades may not fully reflect students' mastery of higher-order skills required in standardized tests. Several studies suggest that classroom assessments often emphasize compliance and content recall rather than deep comprehension and application [1; 2]. The mismatch also supports the argument that the presence of qualified subject specialists, particularly in Filipino, contributes significantly to performance in standardized assessments [8; 28].

Furthermore, Bernhofer and Tonin [17] emphasized the role of language and instructional clarity in academic achievement. In this context, the absence of Filipino majors teaching Wika at Komunikasyon in certain schools may be a critical factor in the observed NAT underperformance. Teacher expertise, as highlighted in the studies of Onumonu and Okeke [29] and Bolarinwa *et al.* [27], is essential in delivering curriculum content in a way that enhances standardized test readiness.

Overall, the visual comparison in Figure 1 highlights a significant gap between reported academic performance and NAT results. This calls for closer alignment between classroom assessment practices and the cognitive skills evaluated in national examinations. The results also reinforce the importance of qualified and specialized teachers in improving test performance and ensuring instructional effectiveness in language subjects.

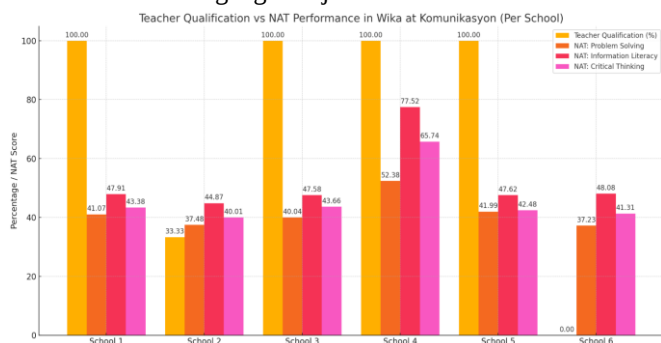


Figure 2 Difference between the distribution of teacher qualifications (Filipino major vs. non-major) and NAT performance in Wika at Komunikasyon in the three components

Figure 2 presents a comparative view of the percentage of Filipino major teachers handling Wika at Komunikasyon and the corresponding NAT performance across six public senior high schools in Dumaguete City Division. The teacher qualification data are expressed in percentages, while the NAT results are disaggregated into three components: Problem Solving, Information Literacy, and Critical Thinking.

The figure reveals that schools with a higher percentage of Filipino major teachers tend to achieve higher NAT scores across all three components. School 4, with 100 percent Filipino majors, recorded the highest scores in Problem Solving (52.38), Information Literacy (77.52), and Critical Thinking (65.74). In contrast, School 6, which has no Filipino major teachers (0 percent), shows the lowest NAT scores in Problem Solving (37.23), Information Literacy (48.08), and Critical Thinking (41.31).

This pattern aligns with existing research suggesting that teacher specialization is strongly linked to student academic outcomes. Studies by Guiaselon *et al.* [8] and Obeka [4] emphasize that mismatches between teacher qualifications and the subjects they teach negatively affect learner performance. Moreover, Onumonu and Okeke [29] found that English teachers' qualifications had a significant impact on students' standardized test scores, a finding that can be analogously applied to Filipino instruction.

The high and statistically significant correlation between teacher qualification and NAT Problem Solving performance ($r = 0.845$, $p = 0.034$) further supports this connection. Similar findings were observed by Kingsley and Omoregie [11] and Antony and Elangkumaran [26], who concluded that subject-specific expertise enables teachers to deliver content more effectively, design more cognitively appropriate activities, and better prepare students for assessment tasks.

While the relationship in the other two components, Information Literacy and Critical Thinking, is not statistically significant, the upward trend in scores remains evident in schools with fully qualified teachers. This observation highlights the indirect yet important influence of content mastery, pedagogical competence, and instructional clarity on students' ability to comprehend, analyze, and evaluate textual and linguistic information [17; 28].

Overall, Figure 2 reinforces the need to deploy subject specialists in senior high school Filipino courses to ensure instructional alignment, assessment preparedness, and improved learning outcomes in the NAT. This supports policy reforms advocating for qualified teacher deployment in line with their academic specialization [10; 6].

CONCLUSION

The results of the study reveal that the academic performance of senior high school students in Wika at Komunikasyon across public schools in Dumaguete City Division is generally rated as "Very Satisfactory." However, their performance in the National Achievement Test (NAT) remains at the "Low Proficient" level, particularly in the areas of Problem Solving and Critical Thinking. While there appears to be a high correlation between academic

performance and NAT scores in Problem Solving, the relationship is not statistically significant.

More notably, the study establishes a high and statistically significant relationship between teacher qualification, specifically being a Filipino major, and students' NAT performance in Problem Solving. Schools with a higher percentage of Filipino major teachers consistently performed better in NAT, indicating that teacher specialization contributes to more effective instruction and assessment readiness.

These findings highlight the importance of aligning teacher qualifications with their teaching assignments and enhancing support for both instruction and assessment preparation in Wika at Komunikasyon. The disparity between classroom academic performance and NAT results calls for targeted interventions aimed at bridging instructional gaps, strengthening content delivery, and fostering deeper comprehension skills among learners.

RECOMMENDATIONS

In light of the findings and conclusions of this study, the following recommendations are proposed:

Prioritize the Deployment of Filipino Major Teachers

The Department of Education and school administrators should ensure that Wika at Komunikasyon subjects are handled by teachers with Filipino specialization. Reassignments and hiring decisions should be aligned with teachers' qualifications to strengthen content delivery and improve student performance in national assessments.

Enhance Instructional Strategies in Wika at Komunikasyon

Teachers handling the subject regardless of major should be provided with regular in-service training and capacity-building programs focused on teaching strategies that develop students' problem-solving, information literacy, and critical thinking skills, in alignment with the NAT framework.

Bridge the Gap Between Classroom Performance and NAT Readiness

While academic grades reflect satisfactory classroom performance, the low NAT results suggest a disconnect in assessment alignment. Schools should adopt assessment techniques that mirror the NAT competencies to better prepare learners for the exam.

Implement Remedial and Enrichment Programs

Schools with persistently low NAT performance may benefit from targeted tutorials and enrichment classes, especially in the three focus areas of Wika at Komunikasyon: Problem Solving, Information Literacy, and Critical Thinking.

Regular Monitoring and Evaluation of NAT Data

School heads and division offices should institutionalize the analysis of NAT results to identify learning gaps, track progress over time, and use data-driven approaches for instructional improvement and teacher deployment.

Encourage Collaboration Among Teachers

Peer coaching and collaborative lesson planning between Filipino majors and non-majors can support knowledge-sharing and help uplift teaching quality and learner outcomes across schools.

Conduct Further Research

Future studies may explore similar relationships in other subject areas or investigate the influence of additional variables such as teaching experience, instructional materials, and classroom observation scores to provide a more comprehensive picture of NAT performance predictors.

REFERENCES

- [1] Casildo, N. J. G. (2022). Modelling the effect of academic performance on National Achievement Test (NAT). In *Proceedings of the 14th International Conference on Computer Supported Education (CSEDU 2022)*, 1, 517–522. <https://doi.org/10.5220/0011106300003182>
- [2] Ojastro, N. C., Banot, V. L., Ragay, N. L., & Batucan, N. A. (2025). Academic performance and National Achievement Test (NAT) performance in Science and Mathematics. *Science International (Lahore)*, 37(1), 109–117.
- [3] Department of Education, Dumaguete City Division
- [4] Obeka, O. N. (2024). Influence of teachers' qualification on students' achievement in English language at the upper basic education level in Ebonyi State, Nigeria. *British Journal of Education*, 12(4), 47–56. <https://doi.org/10.37745/bje.2013/vol12n44756>
- [5] Geoffrey, T., Silaji, T., Eze, C. E., & Eze, V. H. U. (2024). Examining the relationship between teachers' qualifications and students' academic performance. *Journal of Humanities and Social Sciences, 5*(1). <https://doi.org/10.5281/zenodo.XXXXXXX>
- [6] Yasin, G. M. (2021). Teacher qualifications and academic performance of pupils in public primary schools in Hargeisa District. *Education Quarterly Reviews*, 4(3), 39–44. <https://doi.org/10.31014/aior.1993.04.03.315>
- [7] Amadi, J. K., & Anero, N. (2024). Educational qualifications and job performance of teachers in public primary schools in Rivers South-East Senatorial District. *FNAS Journal of Mathematics and Science Education, 5*(2), 37–42. <https://www.fnasjournals.com>
- [8] Guiaselon, B. U., Luyugen-Omar, S., Mohamad, H. A., Maidu, N. U., Maguid, N. P., Samson, C. D., & Sinsuat, D. R. R. (2023). Mismatch of teachers' qualifications and subjects taught: Effects on students' National Achievement Test. *Psychology and Education: A Multidisciplinary Journal, 6*^{*}. <https://doi.org/10.5281/zenodo.7494892>
- [9] Obeka, O. N. (2021). Teachers qualification as a determinant of students' achievement and attitude towards the English language. *Quest Journals: Journal of Research in Humanities and Social Science*, 9(12), 73–81. <https://www.questjournals.org>
- [10] Reyno, R. G., & Guzman, R. B. (2025). Factors affecting the performance of students in the National Achievement Test. *Journal of Interdisciplinary Perspectives*, 3(6), 605–617. <https://doi.org/10.69569/jip.2025.255>
- [11] Kingsley, I., & Omoregie, N. (2020). The influence of teachers' qualifications on academic performance of secondary school students in Delta State. *African Scholars Journal of Contemporary Education Research (JCER-8)*, 19(8).
- [12] Gyeltshen, S. (2021). Examining the influence of university teachers' qualification and experience on

- students' academic achievement in mathematics. *Asian Research Journal of Mathematics, 17*(7), 9–18. <https://doi.org/10.9734/ARJOM/2021/v17i730314>
- [13] Etebu, E., & Amatari, V. O. (2020). Impact of teachers' educational qualification on senior secondary students' academic achievement in Biology in Bayelsa State. *IOSR Journal of Humanities and Social Science, 25*(4, Series 2), 13–28. <https://doi.org/10.9790/0837-2504021328>
- [14] Shedrack, T., & Nduudee, N. J. (2023). Teachers' qualification and secondary school physics students' academic performance in Emohua Local Government Area, Rivers State. *FNAS Journal of Mathematics and Science Education*, 5(1), 124–132. <https://www.fnasjournals.com>
- [15] Feng, G., Fan, M., & Chen, Y. (2022). Analysis and prediction of students' academic performance based on educational data mining. *IEEE Access, 10*, 31173–31184. <https://doi.org/10.1109/ACCESS.2022.3151652>
- [16] Lopez-Zambrano, J., Lara Torralbo, J. A., & Romero, C. (2021). Early prediction of student learning performance through data mining: A systematic review. *Psicothema*, 33(3), 456–465. <https://doi.org/10.7334/psicothema2021.62>
- [17] Bernhofer, J., & Tonin, M. (2022). The effect of the language of instruction on academic performance. *Labour Economics, 78*, 102218. <https://doi.org/10.1016/j.labeco.2022.102218>
- [18] Delos Reyes, R. B., Tongkoh, A. L., & Chavez, J. V. (2023). Transitional challenges and factors affecting English-speaking learners in learning the Filipino language. *Journal of Namibian Studies, 33*(S1), 1720–1744.
- [19] Bacio, S. P., Jr., & Sagge, R. G., Jr. (2022). Development and evaluation of an instructional package for Komunikasyon at Pananaliksik sa Wika at Kulturang Pilipino. *Journal of Positive School Psychology, 6*(3), 3010–3027. <http://journalppw.com>
- [20] Tatar, A. E., & Düşteğör, D. (2020). Prediction of academic performance at undergraduate graduation: Course grades or grade point average? *Applied Sciences*, 10(14), 4900. <https://doi.org/10.3390/app10144900>
- [21] Filgona, J., & Sakiyo, J. (2020). Teachers' academic qualification as a predictor of attitude and academic achievement in Geography of senior secondary school students in Adamawa State, Nigeria. *International Journal of Research and Review, 7*(11), 1–10. <https://www.ijrrjournal.com>
- [22] Okose, N. F., & Obiunu, A. E. (2024). Influence of teachers' years of teaching experience and qualification on students' academic performance in Basic Education Certificate Examination in Basic Science in Delta State. *International Journal of Innovative Social & Science Education Research*, 12(1), 17–26. <https://www.seahipublications.org>
- [23] Omaliko, E. L., & Okpala, N. E. (2021). Influence of teachers' qualifications on academic performance of students in mathematics. *Integrity Journal of Education and Training*, 5(3), 39–46. <https://doi.org/10.31248/IJET2021.112>
- [24] Yakubu, S. A. (2023). Teacher academic qualification as a correlate of students academic achievement in Fine and Applied Arts at the Colleges of Education in Northeast Nigeria. *International Journal of Innovative Education Research*, 11(1), 15–24. <https://www.seahipaj.org>
- [25] Alhassan, A., Zafar, B., & Mueen, A. (2020). Predict students' academic performance based on their assessment grades and online activity data. *International Journal of Advanced Computer Science and Applications, 11*(4). <https://doi.org/10.14569/IJACSA.2020.0110409>
- [26] Antony, S., & Elangkumaran, P. (2020). An impact on teacher qualifications on student achievement in science: A study on the G.C.E (O/L) in Trincomalee District. *International Journal of Engineering Science and Computing (IJESC), 10*(2).
- [27] Bolarinwa, D. A., Kolawole, A. O., Ayodele, O. V., Fakunle, A. F., & Adetule, O. (2020). Teachers' teaching experience and educational qualification as correlates of academic performance of students in public secondary schools in Ekiti State, Nigeria. *Journal of Education and Practice, 11*(2), 108–114. <https://doi.org/10.7176/JEP/11-2-12>
- [28] Laghari, M. A., Chachar, Z., & Gopang, A. S. (2022). Effect of teachers' qualification on students' academic performance at public secondary schools in District Gwadar, Balochistan. *International Research Journal of Education and Innovation*, 3(3), 33–34. <https://www.irjei.com>
- [29] Onumonu, U. S., & Okeke, N. I. (2025). English teacher qualification as determinant of secondary school students' academic performance in Anambra State. *Chukwuemeka Odumegwu Ojukwu University Journal of Arts and Social Science Education (COOUJOASSE)*, 4(1), 134–147.