

Innovative Instructional Strategies in Teaching English and the Research Writing Competencies of Senior High School Students

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Abstract

Research writing is one of the vital competencies that empower students to share their thoughts, analyze data, and solve problems in a knowledge economy. However, most senior high school students experience difficulty writing research papers because they lack adequate knowledge on how to write academic texts.

The study aimed to assess the research writing competencies of Senior High School students in Batangas, focusing on information literacy, critical thinking, academic writing, problem-solving, and data analysis and interpretation. It also examined the extent to which research teachers utilize instructional strategies such as inquiry-based learning, collaboration, technology integration, scaffolding, and interactive materials. It also determined the relationship between students' competencies and these teaching strategies, identify challenges encountered in research writing, and propose improved instructional approaches. These data were obtained through the use of a descriptive research design approach, using a survey questionnaire and focus group discussion as data collection tools among Research teachers in senior high schools in SDO Batangas Province.

It was established that research writing competency among SHS students was generally very well developed in all competency areas. The use of instructional techniques such as scaffolding and collaboration was common among the teachers. Notably, there was also a strong positive correlation between most competencies, which include information literacy, critical thinking, academic writing, and data analysis, and the use of instructional techniques, but excluding the students' problem-solving skills. Moreover, some problems were encountered by the teachers as they utilize the instructional strategies, which include time constraint, students' inadequate research skills, poor academic writing skills, excessive workload, and inadequate resources.

Considering the results obtained from the findings, some innovative strategies that can be used for instruction included coming up with activity sheets that integrate the use of technology to fill the gaps found in analysis, synthesis, grammar, research methodology, and statistics, among others.

Keywords: *Research Writing Competencies, Instructional Strategies, Inquiry-Based Learning*

Introduction

K to 12 graduates are expected to be holistically developed Filipinos who are equipped with different life skills, including learning and innovation skills. The overall framework of the K to 12 curriculum includes a focus on developing higher-order thinking skills like critical thinking, problem-solving, and creativity. The development of these skills lead to the inclusion of conducting research and innovation in the senior high school curriculum.

In Senior High School, the ability to conduct and communicate research effectively is a crucial skill for students as they transition from high school to higher education and beyond. In today's knowledge-based society, individuals are expected to be able to access, analyze, and synthesize information from various sources to solve problems and make informed decisions. Research writing, as a specific genre of academic writing, provides students with a structured framework for presenting their findings and arguments in a clear, concise, and persuasive manner.

Despite its importance, research writing can be a challenging task for many students, particularly those in senior high school. This is often due to lack of understanding of the conventions and expectations of academic writing, as well as difficulties in developing critical thinking and research skills. This idea was supported by the findings of Ilagan (2020) stating that majority of senior high school students poorly performed in their research writing subjects which can probably be caused by students' poor writing and comprehension skills.

With this dilemma, the researcher conducted a thorough study on the innovative English instructional strategies utilized by teachers in enhancing research writing competencies among senior high school students in Congressional District 1 of Batangas Province. This also involved assessing the research writing competencies among senior high school students, as to know how these instructional strategies affect their research skill development.

Specifically, it sought answers to the following research questions:

1. What is the level of research competency of SHS learners as assessed by the teacher-respondents in terms of:
 - 1.1. information literacy;
 - 1.2. critical thinking;
 - 1.3. academic writing skills;
 - 1.4. problem-solving skills; and
 - 1.5. data analysis and interpretation?
2. As assessed by the teachers themselves, what is the extent of utilization of the following instructional strategies to enhance the research writing competencies of learners relative to:
 - 2.1. .inquiry-based learning;

- 2.2. collaborative learning activities;
 - 2.3. integration of digital tools and resources;
 - 2.4. scaffolding instruction; and
 - 2.5. interactive and multimedia resources?
3. Is there any significant relationship between the assessments on the level of research competencies of the SHS learners and on the extent of utilization of instructional strategies?
 4. What are the challenges encountered by teachers in utilizing the instructional strategies?
 5. Based on the analysis of the study, what innovative instructional strategies may be proposed?

Objectives:

1. Determine the level of students' research competency in terms of information literacy, critical thinking, academic writing skills, problem-solving skills, and data analysis and interpretation.
2. Assess the extent of utilization of instructional strategies in enhancing the research writing competencies of SHS students relative to inquiry-based learning, collaborative learning activities, integration of digital tools and resources, scaffolding instruction, and interactive and multimedia resources.
3. Determine the significant relationship between the assessments on the level of research competencies of the SHS learners and on the extent of utilization of instructional strategies.
4. Identify the challenges encountered by students in teachers in utilizing the instructional strategies.
5. Propose innovative instructional strategies in enhancing the students' research writing competencies.

Methodology

Research Design

This study employed a descriptive research design to determine the level of students' research writing competencies and the extent of utilization of English instructional strategies by the teachers, as well as to examine the relationship between these variables. The descriptive method was used to systematically describe the current conditions of students' research writing competencies in terms of their information literacy, critical thinking, academic writing skills, problem-solving skills, and data analysis and interpretation. Meanwhile, the study also assessed the level of utilization of English instructional strategies in Research instruction relative to inquiry-based learning, collaborative learning activities, integration of digital tools and resources, scaffolding instruction, and interactive and multimedia resources. This design is appropriate as it allows the researcher to describe the data within the given variables.

Participants

The respondents of the study consisted of 105 senior high school teachers who teach Research subjects in public senior high schools in Congressional District 1, SDO Batangas Province during the School Year 2025–2026. The participants were selected using stratified random sampling technique to consider the number of teachers in each district as its strata.

Research Instrument

The main instrument used in this study was a researcher-made questionnaire aimed at collecting data on students' research writing skills, the use of instructional strategies, and the challenges teachers face in research instruction. Additionally, the researcher conducted focus group discussions to further explore teachers' responses based on their personal experiences.

Both the questionnaire and the interview questions were validated by education experts to ensure content validity, clarity, and reliability prior to their administration.

Data Collection Procedure

Before conducting the data gathering procedure, the researcher sought permission from the school authorities to carry out the study. After obtaining permission from the school, the researcher then arranged with the teachers how the questionnaire will be properly distributed and the conduct of the focus group discussion. The respondents were explained about the nature of the study, and their confidentiality was assured. Having obtained permission from the school, the questionnaires were then distributed personally within a specified period of time. All completed questionnaires were retrieved, tabulated, and sorted for further analysis. After retrieving the survey questionnaires, the research conducted a focus group discussion among the respondents available at the time of data collection.

Data Analysis

The data were analyzed using appropriate statistical tools. Weighted mean and ranking determined the levels and significance of variables. Pearson's r correlation was used to test the relationship between students' research writing competencies and the teachers' utilization of instructional strategies. All results were interpreted using corresponding verbal interpretations.

Results

This section presents the descriptive and inferential findings of the study.

Tables 1-5 summarize the descriptive and inferential results of the study.

Table 1. Students' Research Writing Competencies

Indicators	Composite Mean	Verbal Interpretation
Information Literacy	3.28	Above Average

Critical Thinking	3.15	Above Average
Academic Writing Skills	3.12	Above Average
Problem-Solving Skills	3.20	Above Average
Data Interpretation and Analysis	3.29	Above Average

Table 2. Teachers' Utilization of Instructional Strategies in Research

Indicators	Composite Mean	Verbal Interpretation
Inquiry-Based Learning	3.70	Highly Utilized
Collaborative Learning	3.70	Highly Utilized
Digital Tools and Resources	3.57	Highly Utilized
Scaffolding Instruction	3.63	Highly Utilized
Interactive and Multimedia Resources	3.47	Moderately Utilized

Table 3. Correlation Between Students' Research Writing Competencies and Teachers' Utilization of Instructional Strategies

Research Writing Competencies	Instructional Strategies	r value	p value	Interpretation
Information Literacy	Inquiry-Based Learning	0.327	0.001	Significant
Information Literacy	Collaborative Learning	0.018	0.857	Not Significant
Information Literacy	Digital Tools and Resources	0.202	0.038	Significant
Information Literacy	Scaffolding Instruction	0.146	0.137	Not significant
Information Literacy	Interactive and Multimedia Resources	0.278	0.004	Significant
Critical Thinking	Inquiry-Based Learning	0.392	<0.001	Significant
Critical Thinking	Collaborative Learning	0.074	0.452	Not Significant

Critical Thinking	Digital Tools and Resources	0.199	0.041	Significant
Critical Thinking	Scaffolding Instruction	0.193	0.048	Significant

Table 4. Top Challenges Encountered by Teachers in Utilizing Instructional Strategies

Indicators	Weighted Mean	Verbal Interpretation
Time Constraints	3.12	Often
Students' Limited Background in Research Writing	3.12	Often
Students' Weak Academic Writing Skills	3.08	Often

Descriptive Statistics

Students' Research Writing Competencies

- O Information Literacy: Composite Mean- 3.28 (Above Average)
- O Critical Thinking: Composite Mean- 3.15 (Above Average)
- O Academic Writing Skills: Composite Mean- 3.12 (Above Average)
- O Problem-Solving Skills: Composite Mean- 3.20 (Above Average)
- O Data Analysis and Interpretation: Composite Mean- 3.29 (Above Average)

Extent of the Utilization of Instructional Strategies

- O Inquiry-Based Learning: Composite Mean- 3.70 (Highly Utilized)
- O Collaborative Learning: Composite Mean- 3.70 (Highly Utilized)
- O Digital Tools and Resources: Composite Mean- 3.57 (Highly Utilized)

O Scaffolding Instruction: Composite Mean- 3.63 (Highly Utilized)

O Interactive and Multimedia Resources: Composite Mean- 3.47
(Moderately Utilized)

Top Challenges Encountered by Teachers in Utilizing Instructional Strategies

O Time Constraints: Composite Mean- 3.12 (Often)

O Students' Limited Background in Research Writing: Composite Mean-
3.12 (Often)

O Students' Weak Academic Writing Skills: Composite Mean- 3.08 (Often)

Inferential Statistics

Information Literacy

O Inquiry- Based Learning: $r = 0.327$, $p = 0.001 \rightarrow$ significant relationship.

O Collaborative Learning: $r = 0.018$, $p = 0.857 \rightarrow$ no significant relationship.

O Digital Tools and Resources: $r = 0.202$, $p = 0.038 \rightarrow$ significant relationship.

O Scaffolding Instruction: $r = 0.146$, $p = 0.137 \rightarrow$ no significant relationship.

O Interactive and Multimedia Resources: $r = 0.278$, $p = 0.004 \rightarrow$ significant relationship.

O Interpretation: The results indicate that inquiry-based learning, technological resources, and interactive multimedia resources exhibit a strong positive correlation with the information literacy of the students, whereas there is no significant correlation between collaborative learning and scaffolding instruction.

Critical Thinking

O Inquiry- Based Learning: $r = 0.392$, $p = <0.001 \rightarrow$ significant relationship.

O Collaborative Learning: $r = 0.074$, $p = 0.452 \rightarrow$ no significant relationship.

O Digital Tools and Resources: $r = 0.199$, $p = 0.041 \rightarrow$ significant

relationship.

O Scaffolding Instruction: $r = 0.193$, $p = 0.048 \rightarrow$ significant relationship.

O Interactive and Multimedia Resources: $r = 0.380$, $p = <0.001 \rightarrow$ significant relationship.

O Interpretation: The results reveal that inquiry-based learning, digital resources, scaffolding instruction, and interactive/multimedia resources are positively related to students' critical thinking skills, whereas collaborative learning is not significantly related to critical thinking.

Academic Writing Skills

O Inquiry- Based Learning: $r = 0.340$, $p = <0.001 \rightarrow$ significant relationship.

O Collaborative Learning: $r = 0.052$, $p = 0.596 \rightarrow$ no significant relationship.

O Digital Tools and Resources: $r = 0.119$, $p = 0.228 \rightarrow$ no significant relationship.

O Scaffolding Instruction: $r = 0.122$, $p = 0.214 \rightarrow$ no significant relationship.

O Interactive and Multimedia Resources: $r = 0.258$, $p = 0.008 \rightarrow$ significant relationship.

O Interpretation: The findings reveal that there is a considerable positive correlation between inquiry-based learning and interactive and multimedia learning materials and students' writing abilities in academics, whereas collaboration learning, computer technology, and scaffolding do not have any significant correlations.

Problem-Solving Skills

O Inquiry- Based Learning: $r = 0.322$, $p = 0.001 \rightarrow$ significant relationship.

O Collaborative Learning: $r = 0.062$, $p = 0.531 \rightarrow$ no significant relationship.

O Digital Tools and Resources: $r = 0.051$, $p = 0.603 \rightarrow$ no significant relationship.

O Scaffolding Instruction: $r = 0.025$, $p = 0.798 \rightarrow$ no significant relationship.

O Interactive and Multimedia Resources: $r = 0.164$, $p = 0.094 \rightarrow$ no significant relationship.

O Interpretation: From the results, it can be observed that there is only one form of instructional strategy that has a strong positive correlation with the problem-solving abilities of the learners, which is the inquiry approach to learning.

Data Analysis and Interpretation

O Inquiry- Based Learning: $r = 0.419$, $p = <0.001$ → significant relationship.

O Collaborative Learning: $r = 0.178$, $p = 0.070$ → no significant relationship.

O Digital Tools and Resources: $r = 0.226$, $p = 0.021$ → significant relationship.

O Scaffolding Instruction: $r = 0.259$, $p = 0.008$ → significant relationship.

O Interactive and Multimedia Resources: $r = 0.432$, $p = 0.008$ → significant relationship.

O Interpretation: Based on the results, there are strong correlations between inquiry-based learning, the use of ICT, scaffolding of instructions, and multimedia and interactive learning materials and students' data analysis and interpretation skills, whereas collaborative learning has no such correlation.

Discussion

Based on the results of the study, senior high school students possess above average skills in research writing when it comes to important areas such as information literacy, critical thinking, academic writing, problem solving, and data analysis. Learners exhibit effective performance in tasks like citation, self-reflection, introductory paragraphs, revision based on feedback, and presentation of data. They struggle more with advanced concepts including comparative analysis, grammar application, method selection, and statistical procedures.

Regarding instructional strategies for improving research writing skills among learners, teachers use a wide variety of strategies that involve methods such as inquiry-based, collaborative, technology-assisted, and scaffolded instruction, indicating the importance of guided learning in improving students' academic abilities. Interactive and multimedia approaches are also used although to a smaller degree. Inquiry and collaboration are promoted through the strategies mentioned earlier while academic integrity is achieved using technology. However, other strategies are underutilized.

The results also show that instructional strategies mostly have a positive impact on the development of research skills among students, especially when it

comes to fostering critical thinking, writing skills, and data analysis abilities. Their effectiveness in promoting problem-solving skills seems to be negligible, and there might be some other factors affecting this skill.

There is a noticeable level of difficulty among teachers in using innovative instructional approaches, which is attributed mainly to lack of sufficient time and insufficient knowledge on the part of the students regarding research writing.

Generally, based on the results of the study, several innovative instructional strategies have been formulated to address some of the deficiencies in terms of student competencies and teaching strategies. This involves the creation of learning materials with the aid of technology to develop skills in information analysis and synthesis, grammar, research techniques, and statistics, as well as supporting teachers to foster independent learning and collaboration as well as utilizing technology for research teaching.

Conclusion

The results suggest that senior high school students exhibit above average competency in research writing based on the perceptions of their teachers. It was found that a high utilization of learning strategies such as inquiry-based learning, collaboration, ICTs, and scaffolding exists; however, the utilization of interactivity and multimedia materials is only moderate. Additionally, the result of this study shows that there is a significant relationship between these learning strategies and students' information literacy, critical thinking, academic writing, and data analysis and interpretation competencies, but not in problem solving skills. In spite of their effort to employ learning strategies in teaching, teachers face several obstacles, which include lack of time, poor research writing competence and writing skills, work overload, and inadequacy of facilities. This led to the development of learning activity sheets using technology for the sustainability and improvement of these research writing skills.

Based on the findings, the study recommends:

1. Utilizing technology-based instructional strategies to assist the students in enhancing their weak point, such as analysis and synthesis of data, correct use of grammar, selection of proper methods for research, and application of statistics.
2. Providing teachers with continuous professional development training and workshops related to new teaching methods such as scaffolding techniques, collaborative learning, and using technology-based devices to enhance their students' learning experience.

3. Promoting the adoption of various digital applications like online database systems, data analytics applications, and plagiarism detection tools to develop students' information and analytical capabilities.
4. Ensuring that the teaching process includes not only guided learning but also periods when learners can independently engage in tasks; the roles and responsibilities within group learning assignments must be clearly outlined.
5. Reducing workloads, reducing teaching burdens, offering teaching assistance and allocating time specifically for research writing lessons.

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