

## ***From Novice to Pro: A Modified Scaffolding Research Guide for Elementary Students***

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### **Abstract**

Research writing was viewed as an advanced skill that should only be taught after students had mastered fundamental language processes like grammar, punctuation, syntax, and spelling. However, with the recognition of research as a crucial component of 21st-century skills, there has been a shift towards introducing research writing earlier, even at the elementary level. The aim of this study was to improve Grade Five students' research writing skills and attitudes towards writing using a process-genre approach. The study identified that students in Grade Five lacked proficiency in writing, research skills, and often had an aversion to writing. A pre-assessment test revealed a neutral level of understanding among students with a mean of 3.429 and a standard deviation of 0.172, emphasizing the need for research writing training and guidance. The study employed an experimental design, where the experimental group was taught using process-genre writing, while the control group was taught using traditional writing methods. The study was conducted for 8 weeks, resulting in significant improvements in research writing skills and expertise in both groups. The study's findings demonstrate the effectiveness of a process-genre approach in improving students' research writing skills and attitudes towards writing.

Keywords: Process-Genre Approach, Research, Scaffolding

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## Introduction

Research writing was regarded to be an advanced skill that should be taught only after pupils had mastered vocabulary, spelling, punctuation, grammar, syntax, and other mechanical language processes supposed to give the necessary foundation. However, because of the changing perception of learning and the fact that research is a component of the 21st- century skills that need to be established, it was said that it should be taught as early as the elementary grade.

Hadani (2010) proved that developing research writing skills for an elementary student is an opportunity to gain skills that will be useful in whatever future career plans they may have, especially now that the global context necessitates a productive research culture that can collaborate with the most recent educational trends.

Almost all institutions in the Philippines are recognizing the importance of research. The development of research culture is a top objective. However, in the Division of Pasig, only 4 or 14 % of public elementary schools and 7 or 44% of secondary schools participated in National Science Fair. (Excluding 2020-2021 due to the pandemic).

Conformance to DepEd Memorandum No. 176 Series of 2016, mandating student participation in the Science and Technology Fair and promoting Science and technology consciousness among the youth, as well as identifying the best Science researchers representing their schools and the country in international competitions, research programs, and activities, is encouraged.

To continue research activities, such as conducting research and publishing scholarly works, the science program must be strengthened by implementing Science Investigative projects in elementary and high school. Science investigative projects should be promoted in elementary and secondary schools to inculcate the value of inquiry in students from a young age.

The Division of Pasig's poor participation in the National Science Fair at the primary level is linked to the division's poor Mean Percentage Score (MPS) in science during the last three years. The Division intends to concentrate on the academic facet of the subject. According to the data (Phil-IRI), the Division's learners' writing abilities and comprehension levels are also below average.

Writing and comprehension are essential skills for elementary students to learn. Integrating writing in research is exceptional. Students can communicate their ideas, feelings, and thoughts to the readers through research. Writing encourages students to arrange words by word, phrases by phrases, and clauses by clauses while also considering structure, cohesion, organization, meaning, and so on. According to Yah (2010), writing well and having good comprehension effectively aim to provide opportunities for language learners to be eager to learn the language and improve language skills, fluency, accuracy, and appropriateness in communicating meaning and messages.

Research writing is critical for students to improve their knowledge and achievement. So, introducing research writing to elementary students can be challenging, but developing an approach in research writing from a different perspective can be extremely beneficial.

Teaching students how to write a basic research paper in a manner that they can readily grasp is the simplest strategy to spark students' interest in research-related activities in Science, such as SIP or Science Investigative Project.

Students must first comprehend the writing process to be persuaded to write research papers. Developing writing skills at a young age, according to Baker, fosters a love of writing and eventually leads to exceptional writing ability (2015).

Writing skills may be taught in a variety of ways, including product-based approach, process-based approach, and genre-based approach. If an effective approach to teaching writing is employed in conjunction with the right activities, students will be encouraged to explain their concepts in outstanding writing and may produce a great research paper (Badger, 2010).

This research will combine the process and genre approaches to write a mini-research paper. According to Badger and White (2010), combining the two approaches in writing (process-based approach and genre-based approach) may be effective in enhancing students' writing skills. This strategy is known as the process genre approach. It enables students to investigate the relationship between purpose and form for a certain genre by using the prewriting, drafting, revision, and editing methods. In this approach, the researchers will utilize a Modified – Scaffolding Research Guide to create a Mini-research paper, which will be anchored in the Process-genre approach in writing.

It takes time to learn research writing skills, and students must practice them regularly. Regular writing practice promotes fluency. As a consequence, adequate time must be provided for teaching research-related writing activities, and the development of an appropriate writing approach is required.

This study will enhance skills in scientific and research-related writing activities such as the SIP- Science Investigative Project. Since the researchers provide a basic technique for writing a research paper, the number of schools participating in regional and national contests related to the research may increase. Teachers may also employ the MSRG-A process-genre approach to prepare pupils for scientific research projects and writings.

## **I. Innovation, Intervention, and Strategy**

The Modified Scaffolding Research Guide (**MSRG**), a process-genre approach (PGA), is a teacher-made activity package that will be used by the researchers. In a nutshell, PGA is an approach to improve a learner's writing skills. The activity combines two well-known writing approaches. The researchers will serve as teachers, demonstrating a process-genre approach using MSRG- an activity package. As a result of the activity, students will have a Mini-Research paper.

Badger and White (2010) experimented using the genre and process approaches together as an alternative in a model called the process genre approach. Through this research, they affirmed that this dual approach works well if the writing cycle begins with models, a description of the key linguistic features, a discussion of the social situation in which it happens, and an analysis of the recommended rhetorical patterns of each genre. Student writing is then subjected to the sequence of drafts in the process approach.

The researchers altered a task known as "Mini Research Paper" (MRP). This activity focuses on writing a research paper appropriate for a Grade Five student. It is a guided activity using a process-genre approach. The guided activity is composed of 5 stages: brainstorming, planning, researching, writing, revising. The researchers will provide supplemental materials (OFFLINE Version- APK File Activities), printed research guide materials, self-made videos, and online interaction via google or Zoom platform for 6 weeks.

It is erroneous to presume that a Grade Five student cannot write a research paper. Today's students have access to more information, making the role of the teacher a guide. This activity Modified Scaffolding Research Guide (MSRG) will help students improve their research skills over time. The ability to find and use information effectively is a necessary skill for life and work and this underpins a solid research skill. Gilmore and Feldon (2010) revealed that, on average, over an academic year, a poor writing approach has been found to relegate research skills development, whereas engagement in research-related activities in basic education may improve the research skills through time.

## II. Action Research Questions

1. What are the pre- and post-assessment levels of Grade Five learners in writing a research paper?
2. How does MSRG – a process-genre approach improve the research writing skills of the Grade Five pupils based on the mini-research activity task?
3. Is there a significant difference between the two groups (control and experimental) after the treatment (MSRG- a process- genre approach)?
4. What is the attitude of learners after learning the Modified Scaffolding Research Guide?

## III. Action Research Methods

### A. Research Design

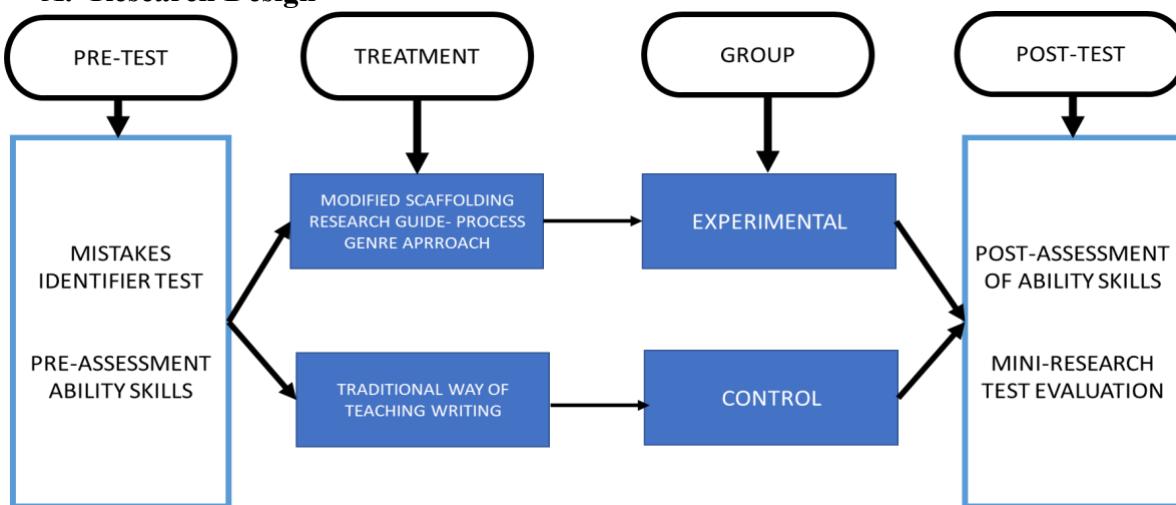


Figure 1: Quasi-Experimental Design

### B. Participants and/or other Sources of Data and Information

This study includes two elementary schools in Pasig (18 in Pinagbuhatan Elementary School & 18 in San Lorenzo Ruiz Elementary School). Participants will be selected based on their

academic group or level, class size, and grade level. They were labeled as the Experimental Group (MSRG-Process Genre Approach) and the Control Group (Traditional Approach). Thirty-six (36) Grade Five students in both schools are included in the study and will take part in the learning activities.

The researchers use stratified random sampling (usually referred to simply as stratified sampling) is a type of probability sampling that allows researchers to improve precision (reduce error) relative to simple random sampling (SRS). The population is divided into non-overlapping groups, or strata, along a relevant dimension such as gender, ethnicity, political affiliation, and so on. The researcher collects a random sample of population members from within each stratum. This technique ensures that observations from all relevant strata are included in the sample.

The researchers facilitate triangulation using the data sources listed above for additional verification and validation of the intervention's effectiveness.

The researcher conducts a pilot study to identify the most common writing errors made by Grade Five students. The researcher gave the students a task: writing a paragraph. The topic is all about his favorite animal.

After writing the paragraphs, the researcher corrected them and counted the sentences to determine the most common errors, which were as follows: grammar, spelling, agreement, and punctuation. After identifying the most common writing errors, they will complete the Self-Assessment of Research Writing Skills to determine the learners' current level of research-writing skills.

**Research Writing Performance Test - Common Mistakes Identifier Rubrics** - For the pilot study, the researchers will ask participants to write a paragraph (minimum of 3 paragraphs) on this topic: favorite animal. Following the pilot testing, it will be evaluated using writing rubrics adapted from the Curriculum of Research and Planning Division-Singapore (2001).

**Modified Scaffolding Research Guide**- The researchers will use a teacher-made activity package that demonstrates the process-genre approach. It is a modified activity designed to meet the needs of the research. It will be shown in two modes: real-time teaching (synchronous) and video presentation (asynchronous).

**Mini-Research Paper Rubrics for Research Writing** - The researcher modified a multi-purpose scoring guide to evaluate student research writing skills. If you master the mini-research paper, you can score up to 90 points. It was divided into four categories (exemplary, good, acceptable, unacceptable).

The rubric criteria are based on parts of the MSRG activity packet (introduction, content, sentence structure, grammar, word choice, and references).

Total Score Description:

- 90-68 Expert Research Writer
- 67-45 Proficient Research Writer
- 44-22 Apprentice Research Writer
- 21- 0 Novice Research Writer

**Teacher-made lesson plan** – The researchers will develop a lesson plan explaining the process of how to make a mini-research paper using the process-genre approach. Experts from the field will evaluate the lesson plan based on the DepEd LRMDS Development and Validation Guidelines.

**Table 1: A descriptive evaluation will be given to assess the lesson plan**

<i>Descriptive</i>	<i>Points</i>
<i>Exceeds Expectation</i>	10-9
<i>Meets Expectation</i>	8-6
<i>Needs Improvement</i>	5-3
<i>Does not meet Expectation</i>	2-0

**Self-Assessment of Research Writing Skills Questionnaire** – The researchers will adapt and modify the SARW from Marquette ESLP 25 Questionnaire (2012) for the pre and post-assessment, with questions about research writing retained.

The assessment instrument will be interpreted using the 5-points scale. (5 is the highest and 1 is the lowest.)

- 5=never or seldom true of me
- 4=usually not true of me
- 3=neutral
- 2=usually true of me
- 1=always or almost always true of me

### C. Data Gathering Methods

This study takes a mixed qualitative and quantitative approach, with one group designated as the control group and the other as the experimental group. Before the treatment, both groups will be pretested using the Common Mistakes Identifier Rubrics. The experimental group will receive the treatment, while the control group will participate in the standard classroom discussion. Pre-test assessment and post-test assessment will be used to verify if there is an improvement in research writing after the treatment. Survey questionnaires will also be used to determine students' involvement, satisfaction, learning, and impressions of using a process-genre approach in writing a research paper.

### D. Data Analysis

**SPSS (Statistical Package for the Social Sciences)** - was used to analyze quantitative data gathered from the pre-assessment and post-assessment. The following statistical tools for data analysis are discussed:

**Descriptive Statistics-** To answer the qualitative profile of the subjects, descriptive statistics such as arithmetic mean, percentage frequency distribution, standard deviation, and coefficient variation will be used as well as for the FGD/ interview.

**Inferential Statistics-** Data will be gathered and analyzed using Independent Sample T-test. The Independent Samples t-Test compares the means of two independent groups to determine whether there is statistical evidence that the associated population means are significantly different. Students in both the experimental and control groups will be pre-tested on their writing abilities and analyzed the pre and post-assessment skill test afterward.

## Conclusion

### The Pilot Study

The researcher performed a pilot study to ascertain the most frequent errors made by Grade Five students when writing. Students were asked to write a paragraph about their favorite animal. Three paragraphs at a minimum.

Following the completion of the paragraphs, the researcher corrected them and numbered the sentences, at which point the researcher determined the frequent errors as follows:

**Table 2: Frequent Errors in Writing**

Mistakes				
	Grammar	Spelling	Agreement	Punctuation
<b>Number of Mistakes</b>	325	245	542	198
<b>Percentage</b>	24.8%	18.7%	41.4%	15.1%
<b>Mean</b>	9.02	6.81	15.0	5.5

A pilot study was carried out to assess students' performance in writing. A total of 36 students participated in the pilot study. The results are shown in Table (1). The results showed that the sample's mean writing scores were lower than the average (9.02). This demonstrates that the students had a relatively low level of achievement in writing. It was clear that their writing ability was weak.

The most common mistake made by Grade Five students when writing a paragraph is subject and verb agreement (41.4%), followed by grammar (24.8%), spelling (18.7%), and punctuation (15.1%). It only reveals that students must learn a subject and verb agreement and, as a result, it is recommended that a special session be held to discuss the basic rules of subject and verb agreement.

According to Brown (2019), teachers teach subject-verb agreement in two ways: deductively and inductively. The rules for deductive and inductive teaching are not the same. As a result, the approach taken by the teacher is determined by several factors, including the nature of the language being taught as well as the preferences of the teachers and students. A suitable approach for an elementary student, on the other hand, maybe a combination of both approaches.

### *Research Q1: What are the pre and post-assessment levels of Grade Five learners in writing a research paper?*

To ascertain control variables before implementing the process-genre approach, the results of the research writing pre-assessment test were statistically analyzed to determine whether there were statistically significant differences in overall research writing performance between the two groups (control and experimental). As a result, the mean scores of the two groups were compared using the t-test for independent homogenous groups, as shown in Table (2).

**Table 3: T-test results of the Research Writing Pre-assessment comparing both control and experimental groups in overall writing performance**

Group		N	Mean	Std. Deviation	Std. Error Mean	t-test for Equality of Means	df	Sig. (2-tailed)
Pre-Assessment	Group C	18	3.5718	1.04931	0.24733	0.935	34	0.356
Mean Score	Group T	18	3.2394	1.08267	0.25519			

According to the results, there were no statistically significant differences in overall writing performance between the control and experimental groups on the research writing pre-test; the t value (0.935) is not statistically significant at the (.05) level. According to scores, the two groups are homogeneous at the start of the experiment.

**Table 4: Pre-Assessment of Research Writing Skills**

Code	Research Writing Ability Test (Pre)	Mean
SK1	I can write a good paragraph.	3.444
SK2	I can write a topic sentence that identifies a paragraph's main idea.	3.472
SK3	I can compose a paragraph with clarity.	3.361
SK4	I can communicate with the reader using proper vocabulary and word forms.	3.611
SK5	I can combine many sentence structures.	3.167
SK6	I can correctly spell, capitalize, and punctuate.	3.806
SK7	I can accurately summarize information I read in English.	3.444
SK8	I can accurately translate information I read into English.	3.556
SK9	I can research any topic.	3.528
SK10	I can select an academic research topic.	3.194
SK11	I can create a good research question.	3.194
SK12	I can make a draft before writing a paragraph.	3.444
SK13	I can organize my writing in many ways (e.g. process, comparison, cause, effect, outlining).	3.556
SK14	I can support my argument with facts.	3.333
SK15	I can perform effective library research to support my thoughts.	3.444
SK16	I can use search engines ( e.g. Google, Internet Explorer, Mozilla) to find material to support my ideas.	3.639
SK17	I can compose an essay conclusion in English.	3.444
SK18	I can write and format articles in English using a word processor.	3.250
SK19	I can efficiently brainstorm before writing.	3.500
SK20	I can read a lot of books before writing.	3.278
SK21	I can organize my thoughts before drafting an outline.	3.500
SK22	I can write quickly under pressure.	2.028
SK23	I can notice flaws in my writing and how to fix it	3.556
SK24	I can apply effective ways to improve my writing.	3.556
SK25	I can think on my own when writing.	3.417
Mean		3.429
Standard Deviation		(Neutral) <b>0.172</b>

Margin of Error:  $3.4289 \pm 0.0677 (\pm 1.97\%)$

According to Table 3, the pre-assessment skills of Grade 5 students are neutral, indicating that the student has a general understanding of how to write a research paper, with a mean of 3.429 and a standard deviation of 0.172. The table depicts that skill code ***SK6 - I can correctly spell, capitalize, and punctuate.*** Get the highest mean of 3.806, which means students in Grade 5 can recognize wrong spelling, wrong capitalization, and wrong punctuation. Followed by, ***SK16 - I can use search engines ( e.g. Google, Internet Explorer, Mozilla) to find material to support my ideas,*** with 3.639.

Corresponding to some studies, search engines have become ingrained in our information environment. They are increasingly taking the place of libraries in terms of aiding information discovery and access. The term "googling" has come to mean "research" (Mostafa, 2018). According to recent statistics, Google has surpassed the use of library catalogs and other online citation databases as the preferred search interface for many staff and students when it comes to addressing their information needs (Griffiths and Brophy, 2019).

Based on the data, the lowest mean score of skill is ***SK22- I can write quickly under pressure,*** 2.028, indicating that students require enough time to write a paragraph. As a result, the researchers extended the number of weeks required to implement the process-genre approach from two to six weeks. Allowing them more time to complete their mini-research paper.

**Table 5: T-test results of the Research Writing Post-assessment comparing both control and experimental groups in overall writing performance**

Group	N	Mean	Std. Deviation	Std. Error Mean	t-test for Equality of Means	df	Sig. (2-tailed)
Post-Assessment C	Group 18	3.4216	.72012	0.24733	-17.348	24	0.353
Mean Score T	Group 18	4.1767	.13124	0.02625			

According to the results, there were statistically significant differences in overall writing performance between the control and experimental groups on the research writing post-test; the t value (-17.34806) ) is statistically significant at the (.05) level.

**Table 6: Research Writing Ability Test ( Post Assessment)**

Code	Research Writing Ability Test ( Post)	Mean
SK1	I can write a good paragraph.	4.139
SK2	I can write a topic sentence that identifies a paragraph's main idea.	4.139
SK3	I can compose a paragraph with clarity.	4.194
SK4	I can communicate with the reader using proper vocabulary and word forms.	4.389
SK5	I can combine many sentence structures.	4.028
SK6	I can correctly spell, capitalize, and punctuate.	4.472
SK7	I can accurately summarize information I read in English.	4.222
SK8	I can accurately translate information I read into English.	4.361
SK9	I can research any topic.	4.250

SK10	I can select an academic research topic.	4.083
SK11	I can create a good research question.	4.056
SK12	I can make a draft before writing a paragraph.	4.278
SK13	I can organize my writing in many ways (e.g., process, comparison, cause, effect, outlining).	4.650
SK14	I can support my argument with facts.	4.111
SK15	I can perform effective library research to support my thoughts.	4.250
SK16	I can use search engines (e.g., Google, Internet Explorer, Mozilla) to find material to support my ideas.	4.139
SK17	I can compose an essay conclusion in English.	4.139
SK18	I can write and format articles in English using a word processor.	4.083
SK19	I can efficiently brainstorm before writing.	4.250
SK20	I can read a lot of books before writing.	4.083
SK21	I can organize my thoughts before drafting an outline.	4.194
SK22	I can write quickly under pressure.	3.806
SK23	I can notice flaws in my writing and how to fix it	4.167
SK24	I can apply effective ways to improve my writing.	4.194
SK25	I can think on my own when writing.	4.139
<b>Mean</b>		4.1767
(Usually True)		
<b>Standard Deviation</b>		<b>0.131</b>

According to Table 5, the post-assessment skills of Grade 5 students are **usually true**, indicating that the students in the experimental group improve their research writing ability after the 6 weeks session, with a mean of 4.1767 and a standard deviation of 0.13124, while the control group after doing the traditional way of teaching research writing gained a mean score of 3.4216 and SD 0.72012, which fall under **neutral level**.

According to the data, the skill with the highest mean of 4.650 is ***SK13- I am capable of organizing my writing in a variety of ways (e.g. process, comparison, cause, effect, outlining)***, which indicates that after the session using the Modified Scaffolding Research Guide (Process-Genre approach), the students learned outlining and creating graphic organizers which is a very important component of research writing.

***Research Q2: How does MSRG – a process-genre approach improve the research writing skills of the Grade Five pupils based on the mini-research activity task?***

Table 7 shows that there were statistically significant differences between the mean scores of the control and experimental groups on the research writing after the treatment; the components of research writing performance (introduction, content, sentence structure, word choice, grammar, and use of references) according to analytic scoring, t value is (-4.3333) for "Introduction", (-3.8889) for "Content", (-4.0556) for "Sentence Structure", (-3.8889) for "word choice", (-3.2778) for "Grammar" and (-5.0000) for "Use of References" were statistically significant at ( $\alpha \leq .05$ ) level, which means that Modified Scaffolding Research Guide (Process-Genre Approach) is an effective intervention to improve Grade Five students research writing skills.

**Table 7: Comparison of Two Means based on the Score - Research Writing Skills**

Independent Test of Significance							
Research Writing Skills	Group	N	Mean	Std. Deviation	Std. Error Mean	Mean Difference	Interpretation
Introduction	Traditional Group	18	6.7222	1.63799	0.38608	-4.3333	Significant
	Experimental Group	18	11.0556	1.73111	0.40803		
Content	Traditional Group	18	6	1.878672873	0.44281	-3.8889	Significant
	Experimental Group	18	9.88889	1.778594584	0.41922		
Sentence Structure	Traditional Group	18	6.38889	1.576999716	0.3717	-4.0556	Significant
	Experimental Group	18	10.4444	1.293523334	0.30489		
Word Choice	Traditional Group	18	5.94444	1.513555309	0.35675	-3.8889	Significant
	Experimental Group	18	9.83333	1.098126747	0.25883		
Grammar	Traditional Group	18	4.5	1.504893977	0.35471	-3.2778	Significant
	Experimental Group	18	7.77778	1.477500097	0.34825		
Use of References	Traditional Group	18	5.38889	1.68519117	0.3972	-5.0000	Significant
	Experimental Group	18	10.3889	1.68519117	0.3972		

Hence, Table 7 reaffirms the fact that the two groups are homogenous at the beginning of the experiment concerning analytic scores.

**Research Q3: Significance difference between the two groups (control and experimental) after the treatment (MSRG- a process- genre approach)?**

**Table 8 Test of Normality of Two Groups (Control and Experimental Group)**

	Kolmogorov-Smirnov <sup>b</sup>			Shapiro-Wilk			
	Statistic	df	Sig.	Statistic	df	Sig.	
Experimental Group	Score	0.186	18	0.1	0.928	18	0.182
Control Group	Score	0.156	18	.200*	0.938	18	0.272

The researcher used a normality test to see whether our data was normally distributed. This test will determine whether or not the Independent T-test can be used in our study. We can now assume that we can use the test because the p-value is greater than the 0.05 level of significance (0.182 and 0.272) with no outlier's item.

**Table 9: Mean Scores of the Two Group (Traditional and Experimental Group)**

Group Statistics					
	Group	N	Mean	Std. Deviation	Std. Error Mean
Score	Traditional Group	18	34.9444	2.81743	.66407
	Experimental Group	18	59.4444	2.93503	.69179

\* Based on the Mini-Research Paper Evaluation Results

The 18 students who undergo the Modified Scaffolding Research Guide Session (Process-genre approach) while writing a Mini-Research Paper have a greater mean ( M- 59.44, SD- 2.93) compared to the 18 students who write the Mini-Research Paper in Traditional Way ( M- 34.94, SD- 2.81). The t-value is -25.54897. The p-value is < .00001. The result is significant at  $p < .05$ . In other words, the Modified Scaffolding Research Guide (Process-Genre Approach Activity) is an effective way to improve the research writing skills of Grade Five Learners.

**Table 9.1: Mean Scores of the Two Group (Traditional and Experimental Group)**

Independent Samples Test								
Levene's Test		t-test for Equality of Means						
	Equality of variance	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
		f	Sig.				Lower	Upper
Mean Scores	0.109	0.744	-25.549	34	0.000	-24.50000	0.95894	-26.44881 -22.55119

\* Based on the Mini-Research Paper Evaluation Results with Levene's Test

The findings revealed that the students completed the task (mini-research paper) within the time limit. After the session was taught using the modified scaffolding research guide (process-genre approach), the students performed significantly better. Resulting in proficiency to expert research writers ( 45-90 ). The findings corroborated previous research on the beneficial effects of scaffolding in writing instruction (Dewi, 2017; Peters, 2019).

***Research Q4: What is the attitude of learners after writing a mini-research paper? (Traditional Approach and Process-Genre Approach)***

Table 10 reveals that there were statistically significant differences in mean scores between the control and experimental groups on the student writing attitude scale; the t value (6.421) is statistically significant at (.05).

**Table 10: T-Test Attitude Scale of both Group (Control and Experimental) after Research Writing**

Group	N	Mean	Std. Deviation	Std. Error Mean	t-test for Equality of Means		
					t value	df	Sig. (2-tailed)
Control	18	21.3333	5.4125	1.4214	6.421	24	.000
Experimental	18	32.5405	5.4125	1.3165			

These findings provide evidence in favor of the group who undergo the treatment process (process-genre approach). These significant differences between experimental and control results can be attributed to the successful experimental group's session while doing the mini-research paper.

As a result of the researcher's attitude scale survey, we can recommend that as teachers, we should provide them with guidelines on how to write a research paper. Elementary students, on the other hand, are unable to write independently. They require a demonstration of how to write one. That is the purpose of the modified scaffolding research guide, as they will require an output throughout the session to assess their understanding with the teacher's guidance.

The following are some of the comments made by students while writing their mini-research papers:

**Respondent 1:** “Madali palang magsulat ng research. akala ko mahirap. Tinulungan lang ako ni mama sap ag gamit ng canva.”

**Respondent 2:** “Gusto ko ulit magsulat ng research. Pero this time tungkol naman sa mga plants. My favorite plants naman.”

**Respondent 3:** “It is now easy to write an introduction. As long as you have data and google.”

**Respondent 4:** “My most favorite part of writing a research paper is when I’m doing the graphic organizer. It is colorful and I can easily understand. I can now answer the guide questions easily because of my data.”

**Respondent 5:** “Most of my scale is 5 because I learned a lot! Kudos to my science teacher. She’s the best.”

**Respondent 6:** “Now I realized that writing research is not toxic as my ate said. It is really easy peasy.”

Given that a change in attitude occurred as a result of the introduction and implementation of the Process-Genre-approach in this study, it is critical to recognize that teaching research writing as a process encouraged students to become writers. Students gained knowledge by participating actively rather than passively absorbing information.

The process-genre approach compelled students to take an active role in their education. They were required to take control of their writing by choosing their topics, determining how their topics would be developed, and determining the final product. Concentrating on PW resulted in the natural evolution of written language. It sprinted attention to the process of learning rather than the result.

It is concluded that all students are capable of writing and possess something worth writing about. It facilitated the development of writing subskills because Process-Genre-approach

activities occurred in a non-threatening environment in which students were not afraid to take risks. Students developed their style and preferences within this environment (their home).

I assigned a very simple research paper to my students two years ago. There is no standard procedure for writing one. I simply assign the task. I simply explain that it is similar to writing an essay. Just keep writing. The end result was a shambles.

Then I realized that asking them to write a research paper was a bad idea. The best part is that as a teacher, I need to show them how to begin writing a good research paper. And to do so, I'll need to conduct some independent research. I discover one of the two best writing approaches, the process approach, and the genre approach. I conduct some readings and interviews and realize that I can combine the two processes. The gist is to provide them with the genre by teaching them the importance of data and graphic organizers, as well as to provide them with the right process through scaffolding. I look for a group mate and voila! That is the beginning of this paper.

Teaching research writing skills in elementary school is necessary because as early as elementary grade their love for research will bloom. When they become senior high school, research will just be an easy peasy.

We can guide our students through the "how-tos" of research. We've mastered the skills of navigating text features in nonfiction books, finding credible sources online, using google, and taking notes, which we can pass on to our students. Giving them the basic guidelines on how to start writing is the best first step.

As we go through this study, some ideas pop up like providing video clips on the steps on writing so that during the asynchronous time they can browse and review the process, which is a big help. We also give the student an APK file of the lesson. Meaning they can have a reviewer that can be installed on their cellphone and can be used offline. All of this is provided by the researcher.

We are all aware that conducting research during a pandemic is extremely difficult, but it is one of the challenges that we have overcome. We obtain parental permission, wait for the materials to be validated, run the session for 6 weeks, and check the paper for 1 month using the validated rubrics.

As a recommendation, teachers require additional writing training, particularly in the process genre approach. For those unfamiliar with the writing process, it is recommended that they read books written by experts in the field. Teachers should speak with other teachers who employ the process approach to gain a better understanding of current trends in the field of writing. They will have a more solid foundation for discussions about what writers do and how they feel when they write. These types of discussions are critical for the development of students' subskills in writing.

In the end, we were more than pleased with the outcome. We can now share this study with our colleagues, and we are proud to say that it is highly effective; if we implement this approach to other subjects, perhaps they will achieve the same results.

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