

Posse (Predict, Organize, Search, Summarize, Evaluate) in Esl Classroom for Enhanced Cognitive Skills

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ABSTRACT: This focused on enhancing the cognitive skills of the students in ESL classroom through POSSE Reading Strategy, among Grade 10 students of Callejon National High School during the School Year 2023-2024. A cluster sampling was used in selecting the respondents. The researcher utilized an experimental-quantitative research design where it considers two entities: pretest and post-test of the students before and after the utilization of the POSSE reading strategy. The study utilized the POSSE strategy activity sheets and had a pretest and post-test as the main data-gathering instruments, mean, frequency and t-test was used to determine the significant difference in the enhancement of cognitive skills of the respondents in an ESL classroom using the POSSE reading strategy.

The study revealed that the POSSE reading strategy enhanced the cognitive skills of the students in ESL classroom. Finally, it shows that there is a significant difference in the enhancement of cognitive skills of the respondents in an ESL classroom using the POSSE reading strategy.

KEYWORDS – Cognitive Skills, MPS, POSSE Reading Strategy, Summative Assessments

INTRODUCTION

The K–12 Enhanced Basic Education results from education reform in the Philippines. Creating a mechanism for evaluating student learning is a component of this change. Knowledge, process, understanding, and performance/product are the terminology components the Department of Education (DepEd) devised for competencies that must be evaluated in the classroom. The capacity of learners to acquire learning information independently of prior knowledge, comprehension, application, analysis, and evaluation is known as cognitive ability. Critical cognitive thinking is yet another crucial skill required for learning success. Critical cognitive thinking abilities and language learners are inextricably linked in schooling. They must be able to simultaneously use their investigative and critical thinking abilities since they are continuously exposed to various knowledge through what they must read and observe. It is not possible for critical cognitive thinking abilities to emerge spontaneously. To boost student involvement and get the desired results, the skills need to be practiced possible result. It is necessary to teach, study, and practice them (Hammond et al., 2020). According to Shipstead et al. (2010), if working memory capacity can be increased through training, this should have a transfer effect on various untrained tasks that rely on such a capacity. This

is because working memory limitations may affect various higher cognitive functions.

Learning activities based on Bloom's revised taxonomy can be developed to help students engage in active learning and improve their metacognitive skills. The lowest and most fundamental cognitive capacity is knowledge, which is included in the first level, along with understanding and application. An engaging lesson based on Bloom's taxonomy can help students learn effectively and accomplish positive outcomes and goals. Creating educational activities grounded in Bloom's revised taxonomy might help students become more metacognitive and engage in the active learning environment.

The Revised Bloom's taxonomy can substantially enhance students' learning, particularly in metacognitive understanding. According to Bloom's taxonomy, cognitive processes fall into six categories: remembering, comprehending, applying, analyzing, evaluating, and creating.

Because the twenty-first century, often known as the Information Society, has seen a shift in educational practices away from behaviorist psychology. Toward knowledge-oriented constructivist philosophy, the prominence of education has shifted from the instructor to the student and from teaching to learning due to the need to generate knowledge.

Alternatively, "the art of teaching" has rapidly surpassed "the science of learning" in this century. Reading is the basis for comprehension, and comprehension is the basis for learning. Reading comprehension depends on the user's ability to effectively use cognitive structure, which calls for response actions like awareness of one's cognitive system. Schultz (2011) and Muijselaar et al.

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(2017) contend that because reading is viewed as a stage of written communication, effective text comprehension necessitates using various cognitive strategies by the reader. Text comprehension involves the reader making assumptions about the text's potential subject matter based on prior knowledge and information.

To understand expository or informational texts, students discuss what they have read and apply the reading comprehension techniques of organizing, searching, summarizing, and assessing. With this in mind, POSSE Reading Strategy—a memory-assistance reading comprehension strategy—also works with integrating reading and learning processes. The POSSE technique consists of numerous processes: organizing, searching, summarizing, evaluating, and predicting.

The approach helps students organize their knowledge and connect it with what they have acquired. Readers draw from their past experiences and knowledge to interact with the text, allowing them to add new words, linguistic nuances, and other information to their schemata.

OBJECTIVES OF THE STUDY

This study aimed to determine the effect of the POSSE Strategy in ESL Classrooms on enhancing learners' Cognitive Skills. Specifically, it answered the following questions:

1. What are the pretest scores on cognitive thinking skills of the respondents in terms of:
 - 1.1 Knowledge;
 - 1.2 Process; and
 - 1.3 Understanding?
2. What are the posttest scores on cognitive thinking skills of the respondents using the POSSE Reading Strategy in terms of:
 - 2.1 Knowledge;
 - 2.2 Process; and
 - 2.3 Understanding?
3. Is there a significant difference between the pretest and posttest scores on the cognitive thinking skills assessments of the respondents?

METHODOLOGY

The research design in this study is quantitative experimental. The study aims to investigate and explore the effect of the POSSE reading strategy in enhancing the cognitive skills of Grade 10 learners in an ESL classroom. The study highlights the significance of the POSSE strategy in enhancing the learners' cognitive skills through pretest and posttest. Through the experimental research design, the study aims to reveal the effect of the POSSE strategy on the learners' cognitive skills. This design helps the researcher gather important facts and data regarding the overall logical presentation of the study.

This determines and assesses how the students effectively use the different phases of the POSSE reading strategy. This also seeks to determine if there is a significant difference in the cognitive skills of Grade 10 students before and after injecting the reading strategy.

The researcher chose Callejon National High School, Callejon, San Antonio Quezon junior high school students, specifically Grade 10 students, as the research respondents. The study selected one (1) group (Section Daphne) of Grade 10 learners in this school year 2023-2024, identified as the Daphne group, which consists of forty-four (44) learners.

The study utilized different instruments to gather the needed data to answer the research questions. These included the validated pretest and post-test assessment, table of specifications, lesson exemplars, and the POSSE reading strategy sheet.

The researcher used statistical techniques to correctly interpret and analyze the data to obtain accurate responses to the specific questions.

In response to the analysis of the extent of student-respondents' experience in answering the pretest and post-test exams, mean and standard deviations were used. A paired t-test was used to examine whether there was a significant difference in the pretest and post-test scores in enhancing the cognitive skills of the respondents.

The researcher conceptualized and proposed the research title based on the learners' demands and needs. The researcher followed a formed procedure to implement the study. The researcher believes that reading and comprehension are two of the most important skills one needs to have a deeper analysis and understanding of knowledge and information. The researcher also believed that having a POSSE Reading Strategy can help learners enjoy the lesson discussion more using the different activities under this strategy. The researcher also believed that this study may help and benefit other teachers in teaching and learning.

The research study includes validated pretest and post-test assessments, lesson exemplars, a table of specifications, and a POSSE Strategy Sheet. Pretests and post test were assessed to see if there was a significant difference and relationship between the learners' cognitive skills before and after using the reading strategy. This also determined the effectiveness of the reading strategies in enhancing the cognitive skills of Grade 10 learners after utilizing the strategies.

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The researcher drafted a formal letter to the Schools Division Superintendent requesting permission to conduct the study at Callejon National High School and select junior high school students as research respondents. Following approval, an endorsement letter was obtained from the office of the school officer in charge. In addition, the researcher sent letters of request to English teachers, master teachers, head teachers and school heads, asking permission to serve them as validators for the research instruments.

Before fully implementing the research, the researcher prepared all the necessary materials and ensured the availability of the strategy sheet, materials, and other resources. This comprehensive preparation sought to create a smooth implementation of the study to identify the effect of the POSSE reading strategy on our learners' cognitive skills.

In a month or the third quarter period, Grade 10 students were fully immersed in the lesson and the lesson instruction and activities. As the researcher prepared the materials and lesson to be used, the researcher first gave the respondents the validated pre-test assessment to identify the respondents' scores in the different questions that were categorized according to the level of cognitive skills. Lessons presented during the research were conducted every week, with one lesson per week. The validated lesson exemplars and their strategy sheets for the POSSE reading strategy per lesson were integrated and utilized.

A POSSE strategy throughout the lesson involves pre-, during, and post-reading activities. The lessons given in the third quarter, as suggested by English 10 MELCS, were integrated by the POSSE strategy, which used different activities and questions in different phases, such as predicting, organizing, searching, summarizing, and evaluating. POSSE reading strategy also comprises different graphic organizers that can be used to answer the motive questions related to the topics.

Throughout the research on the POSSE reading strategy to enhance the cognitive skills of the respondents in an ESL classroom, the researcher thoroughly monitored and facilitated the respondents' progress and engagement. This also involved closely observing how students answered the teacher's questions and supplied answers in the activity sheet. By actively monitoring the students, the researcher gained insights into the effectiveness of the POSSE reading strategy. It allows learners to answer questions and present their insights about a topic, question, and activity.

After utilizing the lesson using the POSSE reading strategy, the researcher assessed the respondents by giving them the validated post test that categorized questions under knowledge, process, and understanding. By conducting these assessments, the researcher aimed to understand the students' cognitive skills comprehensively, thereby gaining insights into the effectiveness of the POSSE strategy in enhancing the respondents' cognitive skills in an ESL classroom.

RESULTS AND DISCUSSION

Table 1: Mean Pretest Scores on the Cognitive Skills of the Respondents

Cognitive Thinking Skills	Mean	Std. Deviation	Interpretation
Knowledge	2.59	1.02	Developing
Process	3.11	0.99	Developing
Understanding	2.91	0.96	Developing
Overall	2.87	0.98	Developing

Legend: 8.00-10.00 Advanced, 6.00-7.99 Proficient, 4.00-5.99 Advance Proficient, 2.00-3.99 Developing, 0.00-1.99 Beginning

Table 1 presents the mean pretest scores on the cognitive skills of the respondents in terms of knowledge, process, and understanding, together with the standard deviation. The study's findings show an overall mean score of 2.87 and a standard deviation of 0.98 with a verbal interpretation of "Developing." Many students show evidence of moderate cognitive skills, meaning they can understand basic ideas and carry out tasks requiring minimal reasoning and problem-solving.

In addition, as the table shows, "Process" had the highest mean score of 3.11 among these three cognitive skills presented, with a standard deviation of 0.99. This means that the respondents got the highest scores under the process questions in answering the pretest. This also reveals that the process level scored highest among the three cognitive skills. Respondents' skills under this level show their capabilities in rote memorization and engaging in basic activities. Following closely, "Understanding" had a mean score of 2.91 with a standard deviation of 0.96, which means that the next process under the cognitive skills is being followed by understanding. Respondents in this cognitive skill level show they can connect and link the knowledge into something new that makes sense. They can also recall fragments of facts without a thorough understanding of the issue. The last one falls under the cognitive skills identified as "Knowledge," with a mean score of 2.59 and a standard deviation of 1.02. Having the respondents' knowledge skills, they tend to define and describe terms that fall under the low level of cognitive skills. The respondents also know how to deal with the cognitive task and can retain the terms in their short-term memory. This means the respondents got the lowest mean score in the pretest questions under knowledge in cognitive skills.

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Table 2: Mean Posttest Scores on the Cognitive Skills of the Respondents using the POSSE Reading Strategy

Cognitive Thinking Skills	Mean	Std. Deviation	Interpretation
Knowledge	8.30	1.15	Advanced
Process	7.39	1.22	Proficient
Understanding	7.07	1.55	Proficient
Overall	7.59	1.31	Proficient

Legend: 8.00-10.00 Advanced, 6.00-7.99 Proficient, 4.00-5.99 Advance Proficient, 2.00-3.99 Developing, 0.00-1.99 Beginning

Table 2 shows the mean post-test scores and its standard deviation on the cognitive skills of the respondents after implementing the POSSE Reading strategy. The study's findings show the different levels of cognitive skills, namely knowledge, process, and understanding. It shows an overall mean score of 7.59 and a standard deviation of 1.31 and verbally interprets "Proficient." After implementing the POSSE Strategy, the respondents' skills were compared before and after the implementation. The given result reveals that among the three cognitive skills, the "Knowledge" level had the highest mean, 8.30, with a standard deviation of 1.15, and a verbal interpretation of "Advanced."

Respondents demonstrated a wider body of knowledge in the knowledge level of cognitive skills. In addition to defining and recognizing words or subjects they were familiar with before the POSSE reading strategy was put into practice, after implementing the POSSE Strategy, respondents can now describe, list, state, and even replicate new ideas based on their past knowledge. Under the Knowledge level of the cognitive skills, respondents demonstrated a wider body of knowledge. In addition to defining and recognizing terms or topics they were familiar with before the POSSE reading strategy was implemented, they can now describe, list, state, and even replicate new ideas based on their prior knowledge. Additionally, they can remember information or knowledge they have learned for a long time.

This also reveals that the respondents achieved the highest mean scores on the post-test examination under the knowledge-level questions. Moreover, the "Process" level of cognitive skill followed the knowledge level with its mean score of 7.39 with a standard deviation of 1.22, having its verbal interpretation of "Proficient." This illustrates that the respondents got the process-level questions on cognitive skills, which has second to the highest mean score among the three levels of cognitive skills. After using the POSSE technique, respondents with process-level cognitive skills demonstrate improved abilities. Instead of relying solely on rote recollection, the respondents were able to adapt and utilize mental process skills to arrive at the answers.

Additionally, students were able to create various learning strategies that allowed them to build comprehension and meaning. Additionally, they have long-term memory capacity. Meanwhile, the "Understanding" level of cognitive skill got a mean score of 7.07 with a standard deviation of 1.55, which has a verbal interpretation of "Proficient." Respondents who understand levels of cognitive skills could effectively transfer learned knowledge to new contexts, facilitating lifelong learning. The fact that the respondents could take small bits of information and connect it to other ideas to construct new ones was already noticed before the POSSE Strategy was used.

However, after employing the technique, participants could evaluate data utilizing aspects of their comprehension. They could also go into more detail, expound on, and apply their acquired knowledge. From the standpoint of comprehension, students need to be able to "do" in addition to the "mental act," as mentioned by Wiggins and McTighe (2005). It may be concluded from the study's results that learners acquire greater learning skills and capacities following the application of the POSSE technique than they had before.

Table 3: Test of Difference Between the Pretest and Posttest Scores of the Respondents

Cognitive Thinking Skills	Pretest		Posttest		t	df	Sig. (2-tailed)
	Mean	SD	Mean	SD			
Knowledge	2.59	1.02	8.30	1.15	-34.032	43	0.000
Process	3.11	0.99	7.39	1.22	-18.518	43	0.000
Understanding	2.91	0.96	7.07	1.55	-14.777	43	0.000

If $p \leq 0.05$ (significant); if $p > 0.05$ (not significant)

Table 3 displays the respondents' pretest and post-test results before and after applying the POSSE Strategy. According to the table, there is a significant difference between the respondents' pretest and post-test results before and after using the POSSE Strategy, with all cognitive skills showing a reflected significance value of 0.000, which is less than 0.05. The data displayed in the

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table clearly shows that the POSSE Strategy helps the respondents enhance their cognitive skills, as shown by the increase in the learners' levels of cognitive skills in the pretest and post-test scores.

As seen in the table's results, respondents' cognitive skills have seen a noticeable improvement. As exhibited by the respondent's different levels of cognitive skills, a representation of developing in knowledge level, respondents reached the advanced level. Moreover, the representation of developing levels of respondents' process and understanding levels of cognitive skills also reached the proficient levels. In connection to this, the mean difference between the pretest and post-test of the respondents indicates an enhancement in their cognitive skills after using the POSSE Strategy.

Furthermore, it is notable that utilizing the POSSE strategy influenced the enhancement of the cognitive skills of the respondents in the ESL classroom and helped them improve their knowledge, process, and understanding levels. Respondents' cognitive skills were being enhanced as they can now easily grasp ideas and terms or information. The ability of the respondents to quickly understand concepts, words, and information has improved their cognitive abilities. Additionally, they demonstrate various learning strategies for comprehending, processing, analyzing, and evaluating concepts of all complexity levels.

The data show that respondents' critical thinking abilities improved due to using the POSSE Strategy. They can now recognize, characterize, define, and link concepts from previous knowledge to generate new ones. Respondents' ability to readily understand, reason out more complicated ideas, and use knowledge for lifelong learning indicates that they have also been able to extend terminology and information further.

It also shows that the POSSE strategy provides students with the knowledge and abilities needed to think critically, solve complicated problems, and thrive in the society and economy of the twenty-first century as one of education's main objectives.

It entails integrating information from the text with the reader's perspective and prior knowledge. It also suggests that through reading, students can cope, relate, and connect ideas from prior knowledge that falls under the knowledge level of cognitive skill to develop more critical thinking skill that falls on the process and understanding level of cognitive thinking skills (Somadyo 2011).

CONCLUSION

Based on the findings of the study, the following conclusion is drawn:

1. There is a significant difference in the enhancement of cognitive skills of the respondents in an ESL classroom using the POSSE reading strategy. Therefore, the null hypothesis stating that "there is no significant difference between the pretest and posttest scores in the cognitive skills test of the respondents using the POSSE Reading Strategy" is not sustained.

2.

RECOMMENDATION

1. Since the study revealed the effectiveness of the POSSE reading strategy in enhancing cognitive skills, it is advised that the study be carried out in various grade levels and subject areas in the teaching and learning process as the study results.
2. With the POSSE Reading Strategy, the teacher can create differentiated exercises that appeal to the learners' diversity or multiple intelligences. They might also include interactive and multimedia elements to improve the learners' engagement with the Reading Strategy Sheet.
3. It is recommended that the teachers select appropriate visual organizers and activities for the learners' grade levels and topic areas since the POSSE Reading Strategy can be applied in various subject areas and grade levels.
4. Future researchers are encouraged to conduct further studies to explore the effects of the POSSE strategy in any other learning domain or aspect. By building upon existing findings about the research, future researchers can contribute to the ongoing advancement of English teaching and practices in education.

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