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Post-Pandemic Assessment of Fundamental Reading, Writing and Arithmetic Skills of Grade 5 Learners

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Abstract

This study investigated the proficiency in fundamental reading, writing and arithmetic skills of grade 5 learners in Davao Region, Philippines during a post-pandemic assessment conducted in April 2024. A quantitative descriptive design was used, utilizing data from 195 grade 5 learners randomly selected by DepEd – Bureau of Education Assessment (DepEd - BEA) from six school divisions. Validated test questions aligned with the K to 12 curriculum and Southeast Asia-Primary Learning Metrics (SEA-PLM) Band of specification were utilized for reading, writing, and arithmetic assessments. Point-by-serial analysis confirmed acceptable internal consistency for reading (0.32) and arithmetic (0.30) skills tests. Results revealed low proficiency in both reading (mean score = 18.13%, overall proficiency = 37.15%) and arithmetic (mean score = 5.45%, overall proficiency = 34.50%). Writing analysis showed 65% of students scoring in Band 2, which revealed limited writing skills with fragmented ideas and vocabulary. Run-on sentences and dangling modifiers suggest a lack of focus on coherence and correctness. While the pandemic introduced unprecedented challenges, the study revealed that it does not solely account for the decrease in the academic performance of grade 5 learners. These findings highlighted the need to strengthen intervention programs in reading, writing, and arithmetic across all key stages of the K to 12 curriculums. Implementing a wider variety of assessment formats beyond multiple-choice questions may also be beneficial. This study contributes to the growing body of research on the pandemic's effect on educational attainment and underscores the importance of evidence-based interventions to support student recovery.

Keywords: post-pandemic assessment, reading skills, writing skills, arithmetic skills, Grade 5 learners, Davao Region

INTRODUCTION

Assessment is the process of gathering data to understand what students know and can do (Sitorous, et al., 2020). This information can be collected by observing students during learning activities, examining the outcomes of those activities, or directly testing their knowledge and skills. Through assessment, teachers gain insights into student learning.

Assessment is located among the main factors contributing to quality teaching and learning environment (Kallia, 2017). Lamprianou and Athanasou (2019) point out that assessment relates to the educational goals of "diagnosis, prediction, placement, evaluation, selection, grading, guidance or administration." The priority of Assessment for Learning in its design and practice is to promote students learning. It thus differs from assessment designed primarily to serve the purposes of accountability, ranking, or certifying competence. Most of the assessment activity promotes learning if it provides information to be used as feedback by teachers, and by their students, in assessing themselves and each other, to modify the teaching and learning activities in which they are engaged. Such assessment becomes formative assessment when the evidence is used to adapt the teaching work to meet learning needs (Black et al., 2018; Derrick, J. & K. Ecclestone, 2020).

The COVID-19 pandemic significantly disrupted educational systems worldwide, raising urgent concerns about potential learning loss among students, particularly in foundational skills relevant to future academic success. Grade 5 students represent a critical group for assessment in the post-pandemic era. This age group is transitioning from acquiring basic literacy and numeracy skills such as reading, writing and arithmetic to applying them in more complex learning (Dorn et al., 2020). The pandemic's sudden shift from traditional to

remote learning environments has caused significant concern about their academic performance and overall development (UNICEF & SEAMEO, 2020).

However, challenges exist in effectively measuring this learning loss. While standardized testing is a valuable tool, schools often struggle to find the right balance between high-stakes assessments and data that informs daily teaching practices (Balfanz et. al, 2020). Challenges include difficulty in accessing or interpreting data effectively (Kroeger et al., 2021; Hamilton et al., 2021). Additionally, educators may lack the necessary skills to translate data into actionable strategies for improving classroom instruction (Slavin & Madden, 2021). This disconnect can lead to teacher frustration and hinder efforts to address student learning gaps.

Before the pandemic, results from the Southeast Asia Primary Learning Metrics (SEA-PLM) and National Achievement Tests (NAT) already indicated areas needing improvement in these fundamental skills (UNICEF & SEAMEO, 2020). In the 2019 SEA-PLM, over 25% of Grade 5 students in the Philippines fell into the lowest proficiency band in reading, which meant that they struggled to grasp basic relationships between words and their meanings. Similarly, nearly half (46%) exhibited limited writing abilities, and approximately 41% failed to meet the expected mathematics proficiency level (UNICEF & SEMAO, 2020). These pre-pandemic concerns revealed the vulnerability of Filipino students' foundational skills.

The pandemic's disruptions are likely to have exacerbated these existing issues. Research conducted globally on post-pandemic assessment suggests a correlation between the duration of school closures, the effectiveness of remote learning strategies, and the extent of learning losses (Engzell, Frey, & Verhagen, 2021). Studies by Engzell et al. (2021) and Garbe et al. (2020) found that students in various countries experienced significant problems in reading and mathematics, with marginalized and disadvantaged groups disproportionately affected.

The Philippine context further amplifies these concerns. Data from Davao Region's Early Grade Reading Assessment (EGRA) in 2021-2022 reveals that while over half (50.19%) of Grades 1-3 students have mastered early reading skills, nearly half (49.81%) still require improvement. Similarly, the 2022 National Achievement Test in Mathematics paints a concerning picture, with over two-thirds (68.25%) of students falling below proficiency levels (23.15% not proficient, 45.10% low proficient). These data emphasize the urgent need for a comprehensive assessment of Grade 5 students' proficiency in fundamental literacy and numeracy skills post-pandemic.

This study aimed to evaluate the post-pandemic academic performance of Grade 5 students in reading, writing, and arithmetic. Through a thorough assessment, specific areas of learning loss can be identified. A well-designed assessment can provide valuable insights into the students' proficiency in reading, writing, and arithmetic. This information can then be used to inform strategies for learning recovery at various levels. Educators can tailor their instruction to address identified weaknesses, while policymakers can develop support programs for struggling students. Moreover, understanding the extent of learning loss can help inform resource allocation decisions to prioritize areas in most critical need.

All these are as embodied in the Philippine Development Plan, Basic Education Development Plan (BEDP) 2030 and the Key Priority Strategies of the MATATAG 4 - point Agenda of the Department of Education that states, share test items with schools and teachers to strengthen the use of assessment. Above all the result of the study aimed to examine the use of assessment policies to propel the desired reforms of the Mindanao Development Agenda 2023-2028 to Pursue human development and overall, well–being of all "Mindanawons," marked by good health, ample education, and social cohesion.

Research Questions. This study investigated the level of proficiency in reading, writing, and arithmetic among Grade 5 learners during a

post-pandemic assessment conducted using a pen-and-paper test. It specifically addressed the research question below:

1. What is the level of proficiency among grade 5 learners in terms of:
   a. reading,
   b. writing, and
   c. arithmetic?

LITERATURES

The COVID-19 pandemic has had unprecedented impacts on education systems worldwide. The sudden shift from traditional classroom settings to remote learning created challenges that have significantly affected learners' acquisition of fundamental skills, particularly in reading, writing, and arithmetic. This review examines existing literature to understand the pandemic's impact on Grade 5 learners' foundational skills, the effectiveness of remote learning interventions, and the implications for future educational practices.

Moreover, research indicates a notable decline in reading proficiency among elementary school students due to the pandemic. A study by Kuhfeld et al. (2020) found that students in grades 3-8 exhibited lower reading achievement levels compared to pre-pandemic cohorts. This decline was attributed to reduced instructional time, lack of access to physical books, and limited interaction with teachers and peers.

Likewise, socioeconomic factors further exacerbated the decline in reading skills. Students from low-income families often lacked the necessary resources for effective remote learning, such as stable internet connections and digital devices (Dorn et al., 2020). Consequently, these students experienced greater learning losses compared to their more affluent peers.

Similarly, the pandemic also hindered the development of writing skills among Grade 5 learners. Research by Graham et al. (2021) highlighted that student had fewer opportunities for writing practice and feedback,

critical components of writing development. The lack of direct teacher supervision and peer collaboration made it challenging for students to refine their writing abilities.

Despite the challenges, some studies pointed out that the increased use of digital tools provided unique opportunities for developing digital literacy. However, the benefits were unevenly distributed, with students who had better access to technology and more supportive home environments showing more significant improvements (Zhao et al., 2020).

The transition to remote learning had a pronounced negative impact on arithmetic skills. Research by Engzell et al. (2021) demonstrated that students experienced significant setbacks in mathematics, more so than in reading. The abstract nature of mathematical concepts and the need for hands-on learning activities made remote instruction less effective.

In addition, teachers faced difficulties in delivering effective mathematics instruction remotely. The lack of interactive, hands-on learning experiences, and immediate feedback mechanisms were significant barriers. Moreover, many parents were ill-equipped to support their children's mathematical learning at home, further contributing to learning losses (Diliberti et al., 2021).

However, several studies have evaluated the effectiveness of various online learning platforms and tools. A report by Molnar et al. (2021) concluded that while some platforms successfully engaged students and facilitated learning, many others fell short due to technical issues, lack of interactivity, and inadequate content alignment with curricula.

The pandemic highlighted the need for comprehensive teacher training in digital pedagogy. Teachers who received professional development in online teaching strategies were more successful in maintaining student engagement and learning outcomes (Kaden, 2020). Continuous support and resources for

teachers are essential for the successful implementation of remote learning.

Finally, post-pandemic, addressing the learning gaps in reading, writing, and arithmetic is crucial. Targeted interventions, such as extended learning time, tutoring programs, and summer schools, have been recommended to help students catch up (Soland et al., 2020).

Ensuring educational equity is vital in mitigating the long-term effects of the pandemic. Policies and practices must focus on providing resources and support to the most affected students, particularly those from disadvantaged backgrounds (Reich et al., 2020).

Furthermore, the pandemic has demonstrated the potential benefits of hybrid learning models, which combine in-person and online instruction. Such models can provide flexibility, cater to diverse learning needs, and help bridge the digital divide if implemented thoughtfully (Means et al., 2020).

Lastly, the COVID-19 pandemic has profoundly affected learners' fundamental reading, writing, and arithmetic skills. While the transition to remote learning posed significant challenges, it also highlighted areas for improvement and innovation in educational practices. Addressing the learning losses and ensuring equitable access to quality education are critical for fostering resilience and future academic success.

METHODOLOGY

Research Design. This study employed a one-group quantitative descriptive research design, where data is summarized and described systematically and numerically. This design allows for an objective understanding of data to describe the post-pandemic reading, writing, and arithmetic level of proficiency of Grade 5 learners.

Participants. Quantitative descriptive design was used utilizing data from 195 grade 5 learners randomly selected by DepEd – Bureau of Education Assessment (DepEd - BEA) from six school divisions in Davao Region namely Panabo City, Island Garden City of Samal, Davao del Norte, Davao Oriental, Davao del Sur, and Davao Occidental for the School Year 2023-2024. These schools were identified to participate in the 2024 Southeast Asia Primary Learning Metrics (SEA-PLM) conducted on April 22-26, 2024. Note that all participants experienced remote learning during the COVID-19 pandemic.

For the writing skills test, the researcher employed a systematic random sampling technique to select only 18 Grade 5 learners whose written responses were analyzed using a scoring rubric adapted from the SEA-PLM Band of Specifications. This analytic rubric, similar to methods used for scoring short answer essay questions, involves identifying all aspects of a perfect answer and assigning a point value to each (Asif Khan, 2016).

Instrumentations. A validated test was used based on the Department of Education Most Essential Learning Competencies (MELS) of Grade 5 for reading, writing and arithmetic. The type of questions is patterned from the 2019 Southeast Asia-Primary Learning Metrics or SEA-PLM. It is a regional assessment program designed to evaluate the learning outcomes of primary school students in Southeast Asia. The program, initiated by the Southeast Asian Ministers of Education Organization (SEAMEO) in collaboration with the United Nations Children's Fund (UNICEF), aims to assess and monitor learning outcomes in reading, writing, and mathematics among Grade 5 students, identify gaps and disparities in education to promote equity and inclusiveness; provide data-driven insights to inform policy and practice at national and regional levels; and foster regional cooperation and sharing of best practices in education, (UNICEF 2019). The test included 50 multiple-choice items in reading, 15 items in mathematics, and 7 open-ended items in writing using Filipino English as instructional medium or language used in the test. Reading and Writing prompts covered topics related to Global Citizenship, such as local and global affairs, environmental protection, and diversity.

The researcher determined the Level of Proficiency of learners in reading and arithmetic using the following criteria in Table 1 as patterned from the National Achievement Test of the Department of Education.

Table 1
Level of Proficiency Criteria*

Mean Percentage	Level of Proficiency
90–100	Highly proficient
75–89	Proficient
50–74	Nearly proficient
25–49	Low Proficient
0–24	Not Proficient

*Patterned from the National Achievement Test of the Department of Education.

To ensure the writing skills test is both objective and reliable, the researcher employed Analytic Scoring. This method, used for scoring numerous limited-response essay questions, allows the scorer to determine the weight of each task or learning outcome and to communicate this to the students. The analytical approach entails identifying all aspects or components of an ideal answer and assigning a point value (Khan, 2016) to specific criteria related to task completion, ideas, vocabulary, organization, and grammar.

The researcher chose to analyze only 18 out of the 195 grade 5 learners' essay tests to ensure a detailed and rigorous assessment while managing time and resources effectively. Essay tests demand extensive evaluation for various criteria such as cohesion, correctness, and vocabulary. Analyzing a smaller, carefully selected sample allows for a thorough and consistent evaluation process, ensuring the reliability and validity of the findings. This focused approach enables the researcher to gain deep insights into the students' writing abilities, identify specific areas of strength and weakness, and provide detailed, constructive feedback. Smaller sample sizes allow for in-depth analysis and capture the complexity of the data effectively. Therefore, selecting a subset of 18 essays from the larger group facilitates a more comprehensive understanding of the learners' performance.

As reflected in Table 2, the proficiency bands and description used in the 2019 SEA-PLM were utilized to assess the writing skills of the participants.

Table 2
Proficiency Bands and Descriptions*

Band of specification	Description
Band 8	Write cohesive texts with detailed ideas and a good range of appropriate vocabulary.
Band 7	Write clear, detailed texts in various contexts with adequate vocabulary
Band 6	Write simple texts for a range of purposes with above basic vocabulary
Band 5	Write non-cohesive basic texts for a range of purposes, using simple vocabulary
Band 4	Produce limited writing, conveying simple ideas with basic vocabulary
Band 3	Produce very limited writing, with simple, insufficient ideas and limited vocabulary
Band 2	Produce very limited writing, with fragmented ideas and inadequate vocabulary
Band 1	Limited ability to present ideas in writing

*Utilized in the 2019 Southeast Asia-Primary Learning Metrics (SEA-PLM).

To ensure face validity, the test items were reviewed, pilot-tested and subjected to test item analysis by the panel of regional education supervisor. Based on the feedback and pilot test administration results, some of the test items were revised and the allotted time for each section was determined (60 minutes for reading, 40 minutes for mathematics, and 60 minutes for writing). Point-by-serial analysis confirmed acceptable internal consistency for both the reading (0.32) and arithmetic (0.30) tests.

Data Collection. Following ethical guidelines, informed consent was obtained from school authorities and parents before the study started. The researcher then collaborated with subject-area experts to develop reading, writing, and arithmetic tests aligned with Grade 5 curriculum competencies.

The Data were collected through a pen-and-paper test administration specifically developed for this study. The test consisted of three sections: reading (50 multiple-choice items), writing (one open-ended prompt), and arithmetic (15 multiple-choice items). The tests were piloted on a separate sample of 195 Grade 5 students from a public school outside the study sample to assess item difficulty and time

allocation. Based on pilot test results, the final test instruments were refined. The researcher then administered the reading and mathematics tests (60 and 40 minutes, respectively) and the writing test (60 minutes) to the identified participants.

Data Analysis. Descriptive statistics (mean and standard deviation) were used to analyze the quantitative data from the reading and arithmetic skills tests. For the writing skills test, an analytic scoring rubric based on the adapted SEA-PLM Writing Proficiency Bands descriptors were employed to evaluate student responses.

Means and Standard Deviations. For the reading and arithmetic skills test, scoring was objective. Each item on the 50-item reading test and the 15-item arithmetic test corresponds to one point. The total score for each student was calculated by summing their item scores. To determine the overall performance of the learners in these subjects, the researcher obtained the mean scores by dividing the total scores by the number of participants (N=195). Standard deviation was then used to assess the variability of individual scores around the mean, indicating how spread out the scores were.

Analytic Scoring for Writing Assessment. The writing skills test employed a different scoring approach, which is the analytic scoring, due to its open-ended nature. This method involved identifying all the key components of a well-written response, such as cohesion, correctness, and vocabulary usage. Each component was assigned a specific point value, and student responses were evaluated based on how well they met these criteria (Asif Khan, 2016).

Ethical Considerations. This study adheres to the general principles of ethical research prescribed by the National Ethical Guidelines for Research Involving Human Participants, (NEGRIHP 2022), such as respect for autonomy, justice, and beneficence were highly observed. To ensure the integrity and ethical soundness of the research, the researcher conducted regional consultations with the Schools Division

Superintendents during the Regional MANCOM, Curriculum Implementation Division (CID) Chiefs, Testing Coordinators, and School Heads. Parents and guardians were also informed about the study's purpose, procedures, potential risks and benefits, and were asked to provide explicit consent for their children's participation. Protecting the privacy and confidentiality of the learners was a priority. The researcher ensured the handling of personal and educational data to prevent unauthorized access and misuse.

Additionally, the study was designed to minimize any potential psychological impact on the learners, by avoiding any form of assessment that could cause undue stress or anxiety. Participants were assured that there was no risk in participating in the study and that their participation was voluntary. They were informed that the result of the test would not form part of their grades. The researcher declared no conflict of interest relative to the study. It was a DepEd research project with no internal funding involved, and collaboration occurred with members of the regional technical working group and subject area experts. Transparency in reporting the findings was essential. The researcher provided an honest and comprehensive analysis of the pandemic's effect on educational outcomes while being mindful of potential policy implications and the need to support affected learners effectively. A copy of the research report/s will be presented at conferences, local and international in both poster and oral research conferences. The data collected became part of a database for the Policy Planning and Research Division. The researcher ensured the security, privacy, and confidentiality of the data, and only aggregate data was used for the study. Data gathered through emails was protected by downloading all files and keeping them safe in a password protected by Microsoft one drive vault and a backup copy in a Hard Drive which was kept by one of the Technical Working Group. These data be stored for 2 years before it will be completely deleted by the researcher.

RESULTS AND DISCUSSION

Table 3
Level of Proficiency of learners in reading.

Schools Division Office	N	Mean	Standard Deviation (SD)	Total Score	High Possible Score	Proficiency	Description
Davao Occidental	23	17.39	6.86	400	1150	34.78	Low Proficient
Davao Del Sur	27	22.89	7.23	618	1350	45.78	Low Proficient
Davao Oriental	23	17.70	6.79	407	1150	35.39	Low Proficient
Panabo City	37	16.49	4.82	610	1850	32.97	Low Proficient
Davao Del Norte	20	20.11	5.91	402	1000	40.20	Low Proficient
IGACOS	65	16.90	5.31	1098	3250	33.78	Low Proficient
RO XI Total	195	18.13	6.27	3535	9750	37.15	Low Proficient

Table 4
Percentage of grade 5 learners achieved nearly proficient in reading.

Level of Proficiency	Mean Percentage	Frequency (N=195)	Percentage
Highly proficient	90–100	0	0%
Proficient	75–89	2	1.00%
Nearly proficient	50–74	27	14.00%
Low Proficient	25–49	130	67.00%
Not Proficient	0–24	36	18.00%

Table 5
Top 3 High and Low – Scored Items

Item	Percentage (%) of learners who got correct answer	Topics/MELCS
		High Scored Items
9	59.00%	Reading comprehension *Make simple inferences from prominent information*
4	54.00%	Reading comprehension *Infer the meaning of unfamiliar words using text clues*
16	54.00%	Graphical Analysis *Analyze how visual and multimedia elements contribute to the meaning of a text*
21		Reading Comprehension *Connect pieces of related information across sections of texts*
		Low Scored Items
34	16.00%	Reading comprehension *Understand texts with familiar structures and manage competing information when locating ideas and details*
31	20.00%	Reading comprehension *Use clues and explicit information to support inferences even when there is competing information.*
26	23.00%	Reading comprehension *Identify the most likely reasons for events and the reactions of characters in narratives, where that information is only implied in the text.*

The results in Table 3 revealed a low overall reading proficiency level among learners, with a mean score of 18.13 (SD = 6.27) corresponding to only 37.15% proficiency. Breaking this down further, only 1% achieved proficient scores, while 14% were nearly proficient, 67% were low proficient, and 18% were not proficient. The finding in Table 5 implies that learners had challenges in terms of reading comprehension specifically understanding texts with familiar structures, using clues and explicit information to support inferences, managing competing information and identifying the most likely reasons for events.

The low reading proficiency scores were concerning. Research by Abbas (2021) emphasized that regardless of instructional methods, difficulties with reading comprehension hindered student development. This result also aligned with the findings by Hoeh (2015) and Mason (2004) who revealed that the inability to comprehend reading texts prevented learners from learning and retaining information, thus leading to poor academic performance, and potentially impacting various aspects of their future lives.

Table 6
Level of Proficiency of learners in Arithmetic.

Schools Division Office	N	Mean	Standard Deviation (SD)	Total Score	High Possible Score	Proficiency	Description
Davao Occidental	22	8.18	4.03	180	330	54.55	Nearly Proficient
Davao Del Sur	27	6.11	2.00	165	405	40.74	Low Proficient
Davao Oriental	23	4.91	1.73	113	345	32.75	Low Proficient
Panabo City	37	4.41	2.01	163	555	29.37	Low Proficient
Davao Del Norte	20	4.65	1.31	93	300	31.00	Low Proficient
IGACOS	65	4.46	1.96	290	975	29.74	Low Proficient
RO XI Total	194	5.45	2.17	1,004	2910	34.50	Low Proficient

Table 7
Percentage of grade 5 learners achieve nearly proficient in arithmetic

Level of Proficiency	Mean Percentage	Frequency (N=195)	Percentage
Highly proficient	90–100	4	2%
Proficient	75–89	2	1%
Nearly proficient	50–74	38	20%
Low Proficient	25–49	107	55%
Not Proficient	0–24	43	22%

Table 8
Top 3 High and Low – Scored Items in Arithmetic

Item	Percentage (%) of learners who got correct answer	Topic / MELCS
		High Scored Items
1	59.00%	Ratio and Proportion *Visualizes percent and its relationship to fractions, ratios, and decimal numbers using models*
2	49.00%	Ratio and Proportion *Identify and write equivalent ratio*
3	40.00%	Place Value *Gives the place value and the value of a digit of a given decimal number through ten thousandths.*

Item	Percentage (%) of learners who got correct answer	Topic / MELCS
		Low Scored Items
4	26.00%	Adding Fractions Adds and subtracts fractions and mixed fractions without and with regrouping
6	27.00%	Graphical Analysis Solves routine and non-routine problems using data presented in a line graph
10	27.00%	Problem Solving Solves routine and non-routine problems involving division without or with any of the other operations of decimals and whole numbers including money using appropriate problem-solving strategies and tools.
12	27.00%	Problem Solving The learner solves whole numbers including money using appropriate problem-solving strategies and tools.

Table 6 revealed low learner proficiency in arithmetic (M= 5.45, SD = 2.17). The overall proficiency level, at 34.50%, indicated a large portion of learners fell below proficiency standards. This finding is similar to the research by Ramful & Lala (2015) who previously identified difficulties with applying problem-solving strategies among grade 5 students. Further supporting this result, the data in Table 8 pointed towards specific challenges in adding fractions, graphical analysis, and problem-solving. These areas of difficulty aligned with the findings of Heffernan et al. (2011) who reported struggles with graphical analysis due to challenges in data interpretation and analysis tasks among grade 5 learners.

Table 9

Level of Proficiency of learners in Writing

Band of specification	Description	Result (18-Sample size)	Common errors
Band 8	Write cohesive texts with detailed ideas and a good range of appropriate vocabulary	0%	Cohesion ▪ Logical sequence of sentences ▪ Clear narration (plot analysis) ▪ Use of cohesive devices
Band 7	Write clear, detailed texts in various contexts with adequate vocabulary	0%	Correctness ▪ Subject Verb Agreement
Band 6	Write simple texts for a range of purposes with above basic vocabulary	0%	▪ English Article/determiner ▪ Verb Tense
Band 5	Write non-cohesive basic texts for a range of purposes, using simple vocabulary	0%	▪ Conjunction, Pronoun and Preposition ▪ be verb/linking verb ▪ Capitalization (upper case)
Band 4	Produce limited writing, conveying simple ideas with basic vocabulary	15%	▪ Question statement ▪ Noun, Verb, Adjective, Prepositional, Adverb, Appositive and participial Phrases
Band 3	Produce very limited writing, with simple, insufficient ideas and limited vocabulary	20%	▪ Spelling, Punctuation ▪ Pluralization
Band 2	Produce very limited writing, with fragmented ideas and inadequate vocabulary	65%	▪ English modals Vocabulary ▪ Choice of words ▪ Conceptual meaning
Band 1	Limited ability to present ideas in writing	0%	

The data from Table 9 showed concerning results in the writing proficiency among Grade 5 learners tested. A substantial portion of 65% scored within Band 2, which indicated that they could only produce very limited writing with fragmented ideas and inadequate vocabulary. Another 20% fell under Band 3 who demonstrated the ability to construct simple sentences with basic vocabulary but lacked elaboration in their writing. Only 15% of students achieved Band 4 which showed the ability to write with some limitations but conveyed simple ideas with basic vocabulary. These findings suggest the learners struggled with core writing competencies. Their written work revealed frequent instances of run-on sentences, fragmented sentences, and dangling modifiers. Although some students demonstrated the ability to construct sentences, a critical weakness was evident in their focus on coherence and adherence to proper grammar.

Several studies support the observed difficulties with writing coherence and correctness. The research of Smith & Johnson (2018) revealed the issue of logical sequencing. Students often struggled to organize their ideas in a coherent manner which resulted in disconnected and fragmented writing. This lack of clear structure makes it difficult for the reader to follow the intended flow of thoughts and ideas. Brown & Davis (2019) further explored the role of transitional words and phrases in writing. Their study pointed out that students often lacked the skills to effectively link their ideas between sentences and paragraphs. This absence of transitions creates a disjointed reading experience, hindering comprehension for the reader. Additionally, Johnson et al. (2020) discussed inconsistencies in perspective within student writing, causing confusion for the reader. Maintaining a consistent perspective throughout a piece of writing is crucial for ensuring clarity and focus. The study of Miller & Thompson (2019) aligned with the observed challenges in limited vocabulary usage in the test. Their findings indicated that students often relied on basic vocabulary instead of exploring more diverse and precise language choices. This overreliance on limited vocabulary can lead to unclear communication and a lack of depth in their writing (Miller & Thompson, 2019). Furthermore, students may misuse words or phrases due to

a lack of comprehension (Green & Brown, 2016). This highlights the importance of vocabulary development strategies to enhance students' understanding and application of new words (Green & Brown, 2016).

Jones et al. (2021) revealed additional challenges related to proper spelling and punctuation usage. These included issues with verb agreement, verb tenses, word order, and comma and apostrophe placement (Black & White, 2017). Mastering these fundamental mechanics of writing is essential for conveying ideas clearly and effectively (Jones et al., 2021).

Moreover, DepEd endeavors to continually provide quality education for Filipino learners. To ascertain the quality of learning in basic education, DepEd believes that assessment plays an essential role in providing reliable data to diagnose the educational system's strengths and weaknesses. For this reason, the Philippines participated in the first cycle of Southeast Asia Primary Learning Metrics (SEA-PLM) in School Year 2018-2019, together with Cambodia, Lao PDR, Malaysia, Myanmar, and Viet Nam. The succeeding data revealed that before the pandemic, results from the (SEA-PLM) already indicated areas needing improvement in these fundamental skills in reading, writing and mathematics, (UNICEF & SEAMEO, 2020).
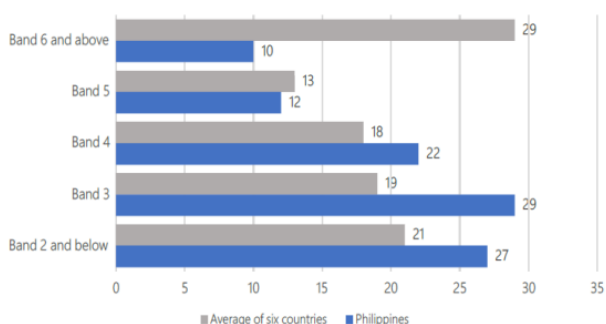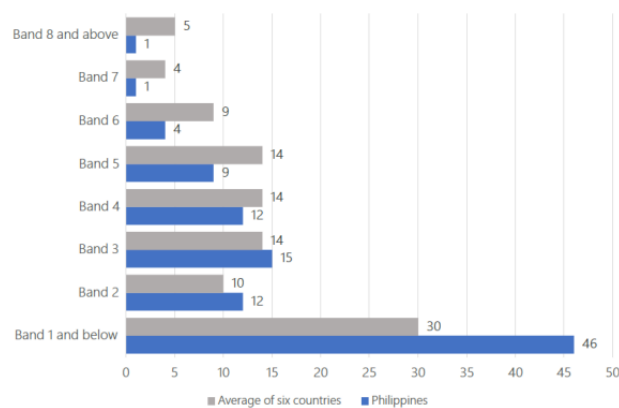

Source: Southeast Asia - Primary Learning Metrics 2019 National Report of the Philippines

Figure 1

Percentage Distribution of Filipino Grade 5 Students in Reading Assessment by Proficiency Band

Presented in Figure 1 is the Percentage Distribution of Filipino Grade 5 Students in Reading Assessment by Proficiency Band. It

shows that more Filipino Grade 5 students belonged to the lower proficiency bands (Bands 4,3,2) compared to the average of six countries. This means that about one-fourth of Filipino Grade 5 students can only identify relationships between words and their meanings in English, the language of the assessment, which is also the official language of instruction. The average score of Filipino Grade 5 students in the Reading Literacy assessment was 288 points, falling within Band 3 of the SEA-PLM 2019 regional proficiency scale (i.e., three bands lower than the highest proficiency band). In general, a typical Filipino Grade 5 student can read a range of everyday texts fluently and begin to engage with their meaning.
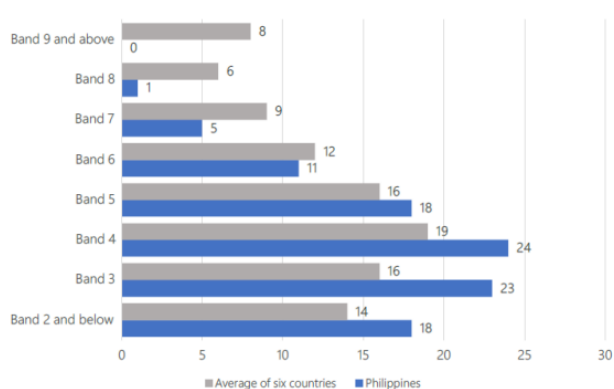

Source: Southeast Asia - Primary Learning Metrics 2019 National Report of the Philippines

Figure 2

Percentage Distribution of Filipino Grade 5 Students in Writing Assessment by Proficiency Band

It can be seen in Figure 2 that a large proportion (46%) of Filipino Grade 5 students belonged to the lowest proficiency band – Band 1 and below. This means that about 46% of Filipino Grade 5 students had limited ability to present ideas in writing. They may be able to produce a few sentences with very limited content. It should be noted that, on average, only 30% of the students across the six countries were classified in this band. On the other hand, only 1 in every 100 Filipino Grade 5 students was expected to belong to the highest proficiency band – Band 8 and above. That means that very few Filipino Grade 5 students can write cohesive texts with detailed ideas and a good range of appropriate vocabulary. Only a small proportion (1%) of the Filipino Grade 5 students (Band 7) was

approaching the highest proficiency band. Therefore, much work needs to be done so that more students will belong to the highest proficiency band in writing literacy. The average score of Grade 5 Filipino students for the writing literacy assessment was 288 points, belonging to Band 2 of the SEA-PLM 2019 regional proficiency scale (i.e., one proficiency band above the lowest band). Generally, a typical Filipino Grade 5 student can produce very limited writing with fragmented ideas and inadequate vocabulary.

Source: Southeast Asia - Primary Learning Metrics 2019 National Report of the Philippines

Figure 3

Percentage Distribution of Filipino Grade 5 Students in Mathematics Assessment by Proficiency Band

The data in Figure 3 illustrates that only a modest percentage of Filipino Grade 5 students achieved the mathematical literacy skills expected at the end of primary school. None of the students were placed in the highest proficiency band – Band 9 and above. Only 1% of them were within Band 8. These students can think multiplicatively and convert between units. Other skills expected of them include solving problems by adding fractions with the same denominator and dividing a decimal number by a 1-digit number, continuing a pattern involving decimals, and solving problems using many-to-one pictographs. About 18% of the Filipino Grade 5 students belonged to Band 5. The students in this band should be able to fluently solve arithmetic problems. About (24%) belonged to Band 4, followed by 23% in Band 3. The students in Band 4 can apply number properties and units of measurement, whereas those in Band 3 can

understand place value and scales of measurement. Note that 18% or about 2 in 5 Filipino Grade 5 (Band 2 and below) students were unlikely to correctly answer this item. The mean score of Filipino Grade 5 students in the mathematics assessment was 288 points, falling within Band 4 of the SEA-PLM 2019 regional proficiency scale (i.e., five proficiency bands below the highest band). In general, a typical Filipino Grade 5 student can apply number properties and units of measurement in English.

The post-pandemic assessment reveals a continuation of the low proficiency levels observed in reading, writing, and arithmetic skills among Grade 5 learners in Davao Region. This finding is particularly concerning as it mirrors the pre-pandemic concerns identified in the 2019 SEA-PLM assessment which suggests that existing challenges in these foundational areas were not adequately addressed. This persistence of low proficiency scores necessitates a deeper investigation into the root causes behind these learning gaps. A deeper investigation into the factors contributing to these low proficiency levels is necessary in designing interventions to effectively enhance students' literacy and numeracy skills and ensure they achieve significantly higher proficiency levels moving forward.

Conclusion. This study investigated the proficiency in fundamental reading, writing and arithmetic skills of Grade 5 learners during a post-pandemic assessment in the Davao Region, Philippines. The findings revealed a cause for concern, with all three skills assessed – reading, writing, and arithmetic – which demonstrated concerningly low proficiency levels. The mean scores in reading and arithmetic translated to overall proficiency rates below 40%, with a substantial portion of students falling under the "low proficient" and "not proficient" categories. Writing analysis further emphasized weaknesses, with a majority of students (65%) scoring in Band 2, which signifies limited writing ability with fragmented ideas and inadequate vocabulary. These results are concerning, particularly when

compared to pre-pandemic data from the 2019 SEA-PLM assessment, which also identified significant deficiencies in these foundational skills.

This continuity suggests that pre-existing weaknesses were not adequately addressed and may have been exacerbated by the pandemic's disruptions to education. Further research is necessary to explore the specific factors contributing to these low proficiency levels. However, based on the current findings, it is evident that interventions are needed to strengthen literacy and numeracy skills across all grade levels. These interventions could include programs focused on reading comprehension strategies, problem-solving in mathematics, and improving writing mechanics and vocabulary. Additionally, exploring a wider variety of assessment formats beyond multiple-choice questions could provide a deeper understanding of student learning. Acknowledging these learning gaps and taking proactive steps to address them can help ensure that learners are equipped with the fundamental literacy and numeracy skills they need for their future endeavors.

Recommendations. Exit exams can be vital to the improvement of academic programs' quality and effectiveness. The result of the Post-Pandemic Assessment for Grade 5 Learners on Reading, Writing and Arithmetic provides solid benchmarks for the Davao Region to examine what specific groups of Grade 5 learners know and can do in reading, writing and arithmetic.

The low proficiency levels in reading, writing, and arithmetic identified in this study highlight the need for interventions across all grade levels within the K to 12 curriculums. While the COVID-19 pandemic likely exacerbated pre-existing weaknesses, the findings suggest that a more comprehensive approach is necessary to address these fundamental skill gaps.

This study contributes to the growing body of research on the pandemic's effect on educational attainment and underscores the importance of evidence-based interventions to support student recovery. Thus, the researcher

finds the following recommendations relevant and urgent:

1. There is a need to strengthen intervention programs in reading, writing, and arithmetic across all key stages of the K to 12 curriculums.
2. For exit assessments, a wider variety of assessment formats beyond multiple-choice questions may also be beneficial to provide a better understanding of the students' learning.
3. An in-depth analysis and utilization of assessment data could be strengthened, including field-level monitoring, and research to continuously inform program innovations and ensure interventions are evidence-based and effective.
4. Establish a robust system for ongoing assessment, monitoring and evaluation of student progress to identify areas where students are struggling and allow timely interventions.
5. Engage parents and the community by providing resources and support for parents to assist with their children's learning at home.

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