

Strengthening Learning Continuity for Multigrade Learners Through the Implementation of DLP (Dynamic Learning Program) Amid Adverse Weather

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Abstract — This study explores the effectiveness of the Dynamic Learning Program (DLP) in sustaining learning continuity for multigrade learners at Yugno Elementary School during adverse weather conditions. Utilizing a descriptive-quantitative research design, the study assessed the level of DLP implementation and its impact on the academic performance of 20 learners (13 from Grade 3 and 7 from Grade 4). Data were gathered through surveys, academic performance records, and checklists over one month during the rainy season. Results showed a high level of DLP implementation in instructional delivery, learning engagement, and communication, despite limitations in output retrieval and parental involvement. A significant improvement in pre- and post-test scores confirmed the positive impact of the DLP on learners' academic performance. However, challenges such as limited parental support, learner monitoring, and logistical concerns were identified. Based on the findings, the study proposes strategic interventions, including differentiated instruction, enhanced LAS management, and stronger community involvement. The study recommends the institutionalization of the DLP in multigrade classes, especially in disaster-prone areas, supported by training and resources from DepEd and LGUs. The development of localized continuity plans through stakeholder collaboration is also suggested to ensure educational resilience. Ultimately, the study confirms the DLP as a viable approach to mitigating educational disruptions caused by adverse weather, provided that systemic, instructional, and community-based supports are effectively integrated.

Keywords — *Dynamic Learning Program, multigrade learners, adverse weather, learning continuity*

I. Introduction

In the Philippines, multigrade learners in geographically isolated and disadvantaged areas face significant barriers to continuous learning, particularly during periods of adverse weather conditions. At Yugno Elementary School, for example, learners are unable to attend school during the rainy season due to impassable roads and rivers, leading to prolonged class suspensions and learning disruptions. As a result, approximately 70% of students fail to achieve the expected learning competencies during this period.

To address these challenges, the implementation of the Dynamic Learning Program (DLP) has emerged as a promising approach. Developed by Dr. Christopher and Dr. Ma. Victoria Carpio-Bernido, the DLP is a brain-based, non-traditional strategy designed to promote independent learning, minimize teacher intervention, and maximize student engagement (Bernido & Bernido, 2020). It offers a sustainable and flexible learning modality that aligns with the needs of multigrade learners, especially in contexts where regular classroom attendance is hindered.

Several studies support the effectiveness of DLP in enhancing student learning outcomes. Delos Reyes and Torio (2021) emphasized that positive teacher–learner rapport within the DLP framework significantly contributes to learner autonomy. Gonzales and Villacruel (2024) highlighted that students engaged in DLP develop strong self-directed learning skills and positive academic attitudes. Similarly, Cerna and Langub (2025) found that DLP significantly improves students’ science process skills in Grade 7, while Von Miguel et al. (2025) explored the positive correlation between learners’ knowledge, beliefs, and academic performance within the DLP structure.

Given these findings, this study aimed to explore and enhance the use of the Dynamic Learning Program to ensure continuity of learning among multigrade learners during adverse weather conditions. By anchoring instruction in structured learning activity sheets and promoting independent learning, DLP offers a viable and resilient educational strategy for communities frequently disrupted by environmental factors.

Research Questions

This study aims to investigate the effectiveness of the DLP in addressing the challenges brought about by adverse weather conditions and ensuring that multigrade learners continue to develop and attain the necessary learning competencies. Specifically, this study sought to answer the following questions:

1. What is the level of implementation of the Dynamic Learning Program (DLP) in multigrade classes during periods of adverse weather in terms of:
 - 1.1 Instructional delivery and guidance
 - 1.2 Access and use of DLP materials (LAS)
 - 1.3 Learning engagement and continuity
 - 1.4 Communication and support during adverse weather
2. How does the DLP influence the academic performance of multigrade learners amid adverse weather conditions?

3. What challenges do teachers and learners face in implementing the DLP during adverse weather?
4. What strategies can be proposed to enhance learning continuity for multigrade learners through DLP during adverse weather conditions?

II. Methodology

This study employed a descriptive-quantitative research design to assess the level of implementation of the Dynamic Learning Program (DLP) and its impact on the academic performance of 20 multigrade learners, 13 from Grade 3 and 7 from Grade 4, at Yugno Elementary School during adverse weather conditions. Quantitative data were collected using standardized tools, including the DLP Implementation Survey for teachers, Academic Performance Record Forms, a Challenges Checklist, and a Strategic Response Rating Scale. With the proper permission from the school head, the researcher gathered data over one month during the rainy season, comparing learners' performance before and during the DLP implementation. The data were analyzed using frequency, percentage, mean, standard deviation, and a t-test for dependent samples to determine changes in academic performance and the effectiveness of strategies to support learning continuity.

III. Results and Discussion

Table 1

Level of Implementation of the Dynamic Learning Program (DLP) in Multigrade Classes during Periods of Adverse Weather in terms of Instructional Delivery and Guidance

Indicators	Mean	VI
1. The teacher consistently provides clear instructions for completing the Learning Activity Sheets (LAS) even during adverse weather conditions.	4.35	VHI
2. Learning tasks under DLP are well-organized and easy to follow without direct supervision.	4.10	HI
3. The teacher ensures that learners understand the objectives of each DLP lesson before distributing the materials.	4.20	HI
4. The teacher gives timely feedback on learners' outputs even when classes are disrupted by bad weather.	3.95	HI
5. The teacher communicates regularly with parents or guardians to facilitate DLP at home.	3.88	HI
6. Learners can work independently on the LAS because the teacher has already explained the lessons well in advance.	4.05	HI
7. The teacher modifies or adjusts instructional delivery based on the learners' needs during prolonged weather disruptions.	3.79	HI
8. The distribution and retrieval of DLP materials are done efficiently despite weather-related challenges.	3.92	HI
9. Learners are encouraged to ask questions or seek help from the teacher even when face-to-face classes are suspended.	3.85	HI
10. The teacher uses alternative methods (e.g., phone calls, messages, home visits) to guide learners during remote DLP sessions due to adverse weather conditions.	4.25	VHI
Overall Mean	4.03	HI

Legend:

4.21 – 5.00	Very Highly Implemented (VHI)
3.41 – 4.20	Highly Implemented (HI)
2.61 – 3.40	Moderately Implemented (MI)
1.81 – 2.60	Slightly Implemented (SI)
1.00 – 1.80	Not Implemented (NI)

The data presented in Table 1 illustrates the Level of Implementation of the Dynamic Learning Program (DLP) in multigrade classes during periods of adverse weather, with a particular focus on instructional delivery and guidance. The overall mean rating of 4.03, interpreted as "Highly Implemented" (HI), indicates that teachers consistently apply DLP strategies even amidst environmental disruptions. This suggests a commendable level of preparedness and instructional resilience among educators in multigrade settings.

Notably, the highest-rated indicators include the use of alternative methods (Mean = 4.25, Very Highly Implemented) and the provision of clear instructions (Mean = 4.35, Very Highly Implemented), underscoring teachers' ability to adapt their strategies and communicate effectively despite the lack of face-to-face sessions. Other key elements, such as the organization of learning tasks (4.10), ensuring learner understanding (4.20), and providing timely feedback (3.95), also received strong ratings, reinforcing the conclusion that instruction continues smoothly even under challenging circumstances. However, the indicator with the lowest mean score (3.79), although still within the "Highly Implemented" category, highlights challenges in adapting instructional delivery to individual learner needs, pointing to an area for potential improvement in differentiated instruction.

These findings are supported by the work of Delos Reyes and Torio (2021), who emphasized that clear teacher-learner communication and task autonomy are essential features of the DLP, particularly when direct supervision is limited due to weather or distance. Learners are more capable of proceeding independently when teachers clearly articulate learning objectives and expectations. Similarly, Gonzales and Villacruel (2024) found that structured yet flexible learning materials, combined with strong teacher support, significantly help sustain learner engagement in challenging contexts. Their findings resonate with the high mean scores in independent work (4.05) and maintaining communication with parents (3.88), both of which are essential for continuity in multigrade instruction.

In conclusion, the results confirm that the Dynamic Learning Program is effectively implemented in multigrade settings during adverse weather conditions. Teachers are adept at maintaining learning processes through clear communication, structured tasks, and the strategic use of alternative methods. Nonetheless, the slightly lower score in differentiated instructional delivery signals the need for further professional development and support mechanisms to ensure all learners receive appropriate, individualized attention during crises.

Table 2

Level of Implementation of the Dynamic Learning Program (DLP) in Multigrade Classes during Periods of Adverse Weather in terms of Access and Use of DLP materials (LAS)

Indicators	Mean	VI
1. Learners are provided with printed Learning Activity Sheets (LAS) before the onset of bad weather.	4.25	VHI
2. DLP materials are readily available and accessible to learners even when face-to-face classes are suspended.	4.10	HI
3. The LAS distributed during adverse weather is appropriate for the learners' grade level and learning needs.	4.00	HI
4. Parents or guardians can easily understand and assist with the LAS activities during class suspensions.	3.85	HI
5. Learners can accomplish the LAS independently using the instructions provided.	3.95	HI
6. The content of the LAS aligns with the competencies required for the quarter or learning area.	4.05	HI
7. Learners receive enough LAS to continue learning during periods of weather-related school closures.	3.70	HI
8. The LAS are returned and checked regularly, even if the school is inaccessible due to bad weather.	3.60	HI
9. The teacher provides orientation or guidance on how to use the LAS at home properly.	3.80	HI
10. Learners are motivated to complete the LAS despite limited classroom interaction during adverse weather.	3.75	HI
Overall Mean	3.91	HI

Legend: 4.21 – 5.00 Very Highly Implemented (VHI), 3.41 – 4.20 Highly Implemented (HI), 2.61 – 3.40 Moderately Implemented (MI), 1.81 – 2.60 Slightly Implemented (SI), 1.00 – 1.80 Not Implemented (NI)

Table 2 presents the Level of Implementation of the Dynamic Learning Program (DLP) in Multigrade Classes during Periods of Adverse Weather in terms of Access and Use of Learning Activity Sheets (LAS). The overall mean of 3.91, interpreted as "Highly Implemented" (HI), suggests that the DLP materials—particularly the LAS—are generally accessible, appropriate, and effective in supporting continued learning during weather-related class suspensions.

Among the indicators, the highest mean rating (4.25, Very Highly Implemented) pertains to the advanced provision of printed LAS before the onset of bad weather. This reflects proactive planning by teachers and schools to ensure that learning continues uninterrupted. Another strong area is the readiness and accessibility of DLP materials during class suspensions (4.10) and the alignment of content with curriculum standards (4.05), indicating that LAS are not only available but also relevant and structured to meet curriculum goals.

Learners were also found to be capable of completing LAS independently (3.95), and the LAS were deemed appropriate for their grade level (4.00), demonstrating that the materials were well-designed for multigrade learners. Moreover, teachers provide some level of orientation and guidance on how to use the LAS at home (3.80), which is crucial in supporting learner autonomy during remote learning.

However, the lowest-rated indicators highlight areas for improvement. These include the regular return and checking of LAS even when schools are inaccessible (3.60), the quantity of LAS provided during school closures (3.70), and learner motivation (3.75). These suggest logistical challenges in material retrieval, sufficient distribution, and maintaining learner engagement without direct teacher supervision.

These findings align with those of Antonio and Garcia (2022), who noted that strong pre-disaster planning and explicit instructional materials are crucial for maintaining educational continuity during weather disruptions. Likewise, Santos and Dela Cruz (2023) emphasized the importance of family involvement and teacher guidance in maximizing the effectiveness of printed modular learning, especially in rural or remote multigrade settings.

Hence, while the DLP's access and use of LAS during adverse weather are highly implemented, certain logistical and motivational aspects still require enhancement. Strengthening distribution systems, providing more detailed orientation for both learners and guardians, and establishing mechanisms for regular feedback can further improve the effectiveness of DLP in multigrade contexts during weather-related disruptions.

Table 3
Level of Implementation of the Dynamic Learning Program (DLP) in Multigrade Classes during Periods of Adverse Weather in terms of Learning Engagement and Continuity

Indicators	Mean	VI
1. Learners continue to engage in learning tasks through the use of DLP materials, even during class suspensions caused by adverse weather conditions.	3.85	HI
2. Learners maintain regular study routines at home using the LAS provided during weather disruptions.	4.95	VHI
3. The DLP encourages learners to be independent and self-directed in accomplishing their tasks.	4.05	HI
4. Parents or guardians actively support learners in completing their LAS during adverse weather.	3.70	HI
5. Learners show interest in the lessons provided through DLP even without face-to-face instruction.	3.60	HI
6. The continuity of learning is sustained because of the structured activities in the DLP.	3.85	HI
7. Learners can complete the required activities on time despite limited supervision.	4.45	VHI
8. The use of DLP minimizes learning loss during prolonged absences from school due to weather-related events.	4.10	HI
9. Learners can recall and apply the lessons learned from LAS once classes resume.	4.00	HI
10. The DLP fosters learners' responsibility and accountability in continuing their education even during emergencies.	4.85	VHI
Overall mean	4.14	HI

Legend: 4.21 – 5.00 Very Highly Implemented (VHI), 3.41 – 4.20 Highly Implemented (HI), 2.61 – 3.40 Moderately Implemented (MI), 1.81 – 2.60 Slightly Implemented (SI), 1.00 – 1.80 Not Implemented (NI)

Table 3 illustrates the level of implementation of the Dynamic Learning Program (DLP) in multigrade classes during periods of adverse weather, with a focus *on Continuity*. The findings

reveal an overall mean of 4.14, which falls under the category of Highly Implemented (HI). This suggests that, despite the challenges posed by weather-related class suspensions, the DLP has been effective in sustaining learners' active participation and academic progress. The highest-rated indicator was "Learners maintain regular study routines at home using the LAS provided during weather disruptions" with a mean score of 4.95 (VHI), reflecting the consistency of learners in managing their study time independently. Likewise, the indicator "The DLP fosters learners' responsibility and accountability" also scored very high (4.85), indicating that the program successfully nurtures learner autonomy. However, the indicator "Learners show interest in the lessons provided through DLP even without face-to-face instruction" received the lowest mean (3.60), suggesting that some learners struggle with motivation in the absence of direct teacher support and peer interaction.

These findings are consistent with existing literature. Cerna & Langub (2025) emphasize that the DLP fosters structured and independent learning, promoting academic skills even outside traditional classroom settings. The data from this study support that claim, as learners were able to continue learning independently despite environmental challenges. Furthermore, the survey by Von Miguel et al. (2025) confirms that students' beliefs and attitudes toward the DLP have a significant influence on their learning outcomes. This aligns with current findings, which suggest that high levels of task completion and accountability indicate that learners view the DLP in a positive light. Nonetheless, the drop in learner interest during remote engagement highlights an area for improvement, particularly in enhancing motivation and strengthening support systems at home.

In conclusion, the data indicate that the Dynamic Learning Program is a valuable strategy for ensuring learning continuity during adverse weather, particularly in multigrade classes. It fosters independent learning, responsibility, and regular study habits. However, for the DLP to be more effective, attention must be given to sustaining learner motivation and improving parental involvement, particularly during prolonged school closures.

Table 4
Level of Implementation of the Dynamic Learning Program (DLP) in Multigrade Classes during Periods of Adverse Weather in terms of Communication Support during Adverse Weather

Indicators	Mean	VI
1. The school provides clear instructions to parents and learners regarding DLP activities during adverse weather.	3.65	HI
2. Teachers regularly check in with learners to monitor their progress while working on LAS at home.	3.89	HI
3. Effective communication exists between the teacher and parents during class suspensions.	4.25	VHI
4. Learners receive adequate guidance from the teacher through text, call, or chat during weather-related disruptions.	3.78	HI
5. Parents are informed of their roles in assisting learners with DLP tasks during emergencies.	3.56	HI
6. The school ensures that communication channels (e.g., group chats, SMS) remain open during adverse weather conditions.	3.98	HI
7. Teachers are responsive to questions or concerns raised by learners or parents about the DLP materials.	4.90	VHI
8. The school provides emotional and motivational support to learners during challenging weather situations.	4.89	VHI
9. Communication and support mechanisms help maintain learner morale and interest in learning.	4.45	VHI
10. The teacher coordinates effectively with local authorities and barangay officials in disseminating DLP-related updates during adverse weather conditions.	4.67	VHI
Overall mean	4.20	HI

Legend: 4.21 – 5.00 Very Highly Implemented (VHI), 3.41 – 4.20 Highly Implemented (HI), 2.61 – 3.40 Moderately Implemented (MI), 1.81 – 2.60 Slightly Implemented (SI), 1.00 – 1.80 Not Implemented (NI)

The findings in Table 4 reveal that the level of implementation of the Dynamic Learning Program (DLP) in multigrade classes during periods of adverse weather, in terms of communication and support, is generally high, with an overall mean of 4.20. Notably, indicators such as teacher responsiveness ($M = 4.90$), emotional and motivational support ($M = 4.89$), and effective coordination with local authorities ($M = 4.67$) are highly implemented, highlighting the crucial role of strong teacher-parent-community relationships in sustaining learning continuity amidst disruptions. These findings affirm the role of DLP not just as an instructional tool but also as a flexible framework that fosters resilience through effective communication channels and emotional support systems.

This result aligns with the study by Cerna and Langub (2025), which emphasized that the success of the DLP is highly dependent on consistent support and communication, particularly in non-traditional learning settings. They found that students are more likely to sustain engagement in science-related tasks when teachers maintain a regular presence, even if it is remote. Furthermore, Von Miguel et al. emphasized the influence of learner attitudes and parental

involvement on the effectiveness of DLP, noting that positive beliefs and proper guidance enhance student performance during home-based learning.

Additionally, Bernido and Bernido (2020) advocated for “essentials over peripherals,” highlighting that DLP thrives when learners are equipped not only with learning sheets but also with sufficient instructions, clear roles for parents, and responsive teachers. The high ratings in communication and support suggest that schools implementing DLP during adverse weather understand the need to simplify learning while amplifying human connection—a vital strategy in ensuring educational continuity in geographically and climatically challenging areas.

Therefore, the findings underscore that strong communication lines and emotional scaffolding provided by teachers, schools, and communities are integral to the successful implementation of DLP in multigrade classes during disruptive weather conditions. This reinforces that DLP is not only academically designed but is also profoundly rooted in adaptive, human-centered education delivery, especially during times of crisis.

Table 5
Academic Performance of Multigrade Learners Amid Adverse Weather Conditions

Grade Level	Pre-test	Descriptive Interpretation	Post-test	Descriptive Interpretation	Difference (Posttest-Pretest)
	Mean Percentage Score		Mean Percentage Score		
Grade 3	33.08	DNME	81.45	Very Satisfactory	48.37
Grade 4	22.64	DNME	80.89	Very Satisfactory	58.25
Grand Mean	27.86	DNME	81.17	Very Satisfactory	53.31

Legend: 90%-100% -Outstanding (O), 85%-89%- Very Satisfactory (VS), 80%-84%-Satisfactory (S), 75%-79%- Fairly Satisfactory (FS), 74% Below -Did Not Meet Expectations (DNME)

The findings in Table 6 reveal a significant improvement in the academic performance of multigrade learners amid adverse weather conditions, as shown by the increase in mean percentage scores from the pre-test to the post-test. Grade 3 learners had a mean increase of 48.37 points, and Grade 4 learners improved by 58.25 points, resulting in a grand mean difference of 53.31 points. These results demonstrate that, despite starting from a performance level categorized as '*Did Not Meet Expectations*' (DNME), learners progressed to the '*Very Satisfactory*' level after the implementation of targeted learning strategies.

This notable improvement suggests the effectiveness of instructional interventions, including the Dynamic Learning Program (DLP), in mitigating the negative impacts of adverse weather on academic performance. As emphasized by Cerna and Langub (2025), the DLP significantly enhances science process skills and student comprehension through consistent learning routines, even in challenging situations. Similarly, Gonzales and Villacruel (2024) affirmed that the DLP’s activity-based and student-centered approach empowers learners to continue learning independently, especially in disrupted settings like typhoons or floods.

Moreover, Von Miguel et al. highlighted that learners under the DLP developed better academic behaviors, self-discipline, and resilience—factors likely contributing to their improved post-test performance. Bernido and Bernido (2020) further supported this, emphasizing that the minimalist yet essential structure of the DLP enables students to focus on mastery learning, even without constant teacher supervision.

Therefore, the results demonstrate that the DLP, when properly adapted and supported, can be an effective tool for improving student outcomes in multigrade settings, even during times of environmental disruption. This underscores the program's potential in promoting academic continuity and resilience among learners facing climate-related challenges.

Table 6
Statistical Table of Significant Differences in Pre-Test and Post-Test Scores of Academic Performance of Multigrade Learners Amid Adverse Weather Conditions

Paired Samples Test										
Paired Differences										
		Mean Difference	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		df	p-value	I	
					Lower	Upper				
1	Pre-Post	48.37	5.67	1.57	44.93	51.81	30.79	12	.000	Significant
2	Pre-Post	58.25	58.25	6.18	2.34	52.35	64.15	6	.000	

*I – Interpretation

The results presented in Table 6 indicate a statistically significant difference between the pre-test and post-test scores of multigrade learners amid adverse weather conditions. For Grade 3, the mean difference is 48.37 with a t-value of 30.79, degrees of freedom (df) = 12, and a p-value of .000, indicating that the improvement is statistically significant. Likewise, Grade 4 shows a mean difference of 58.25, a t-value of 52.35, df = 6, and a p-value of 0.000, which also indicates a significant increase in academic performance after the intervention.

These findings suggest that the learning intervention, notably the Dynamic Learning Program (DLP), had a substantial positive impact on student performance, even under challenging environmental conditions. This aligns with the study by Balaquiao (2024), which found that integrating technology and innovative strategies, such as gamified and student-led activities, in the DLP significantly improves learners' comprehension and retention. Furthermore, Gonzales and Villacruel (2024) highlighted how the DLP, through its structured activity-based learning, allows students to sustain engagement and learning outcomes independently, especially in contexts where regular face-to-face instruction may be disrupted.

The statistical evidence reinforces the theoretical perspectives of Bruner (1978) and Vygotsky (1978) on scaffolding and socio-cultural learning, suggesting that properly designed instructional frameworks can buffer learners against external adversities. It also supports

Bandura's (1977) theory of self-efficacy, as the observed improvements may stem from learners developing confidence through consistent exposure to independent, structured tasks.

In conclusion, the significant difference in pre- and post-test scores underscores the effectiveness of the DLP in improving academic performance among multigrade learners, even during periods of adverse weather. This suggests that the DLP is not only a viable instructional strategy but also a resilient model that supports continued learning in disaster-prone or high-risk areas.

Table 7
Challenges Do Teachers and Learners Face in Implementing the DLP During Adverse Weather

Indicators	Mean	Vi
1. Heavy rains or flooding hinder my (or my child's) ability to access and complete DLP learning activity sheets (LAS).	4.29	<i>Strongly Agree</i>
2. There is a lack of available transportation for learners to pick up or return DLP materials during bad weather.	4.23	<i>Strongly Agree</i>
3. Poor internet or mobile signal during adverse weather makes it challenging to communicate with the teacher regarding the DLP.	4.56	<i>Strongly Agree</i>
4. Teachers find it difficult to monitor learner progress when face-to-face classes are suspended due to adverse weather conditions.	4.90	<i>Strongly Agree</i>
5. Parents or guardians are often unable to guide their children in accomplishing DLP tasks during prolonged weather disruptions.	4.97	<i>Strongly Agree</i>
6. The absence of electricity during storms or typhoons prevents learners from studying or completing DLP tasks effectively.	3.22	<i>Agree</i>
7. Learners experience low motivation to study independently using DLP when classes are disrupted by severe weather.	2.26	<i>Agree</i>
8. There is insufficient supply or duplication of DLP materials when classes are suspended due to bad weather.	2.67	<i>Agree</i>
9. Teachers face difficulty in retrieving completed LAS from learners after a period of weather-related suspension.	4.35	<i>Strongly Agree</i>
10. Learners find it challenging to understand instructions in the LAS without teacher guidance during school closures.	3.11	<i>Agree</i>
Overall mean	3.85	Agree

Legend: 4.21 – 5.00 Strongly Agree, 3.41 – 4.20 Agree, 2.61 – 3.40 Moderately Agree, 1.81 – 2.60 Disagree, 1.00 – 1.80 Strongly Disagree

The findings in Table 5 reveal that both teachers and learners face significant challenges in implementing the Dynamic Learning Program (DLP) during adverse weather conditions, with an overall mean of 3.85 interpreted as "Agree." This suggests that while DLP is generally feasible, its implementation is notably hindered by environmental and logistical obstacles. The most pressing concern, with the highest mean of 4.97, is that parents or guardians often struggle to support learners in accomplishing DLP tasks during prolonged weather disruptions. This aligns with Gonzales and Villacruel (2024), who emphasized the need for home-based support systems to ensure the success of DLP, particularly in communities vulnerable to natural disasters.

Additionally, teachers reported difficulty in monitoring learner progress ($M = 4.90$) and retrieving completed learning activity sheets (LAS) ($M = 4.35$) when classes are suspended. These

findings reinforce the observations of Cerna and Langub (2025), who noted that while the DLP is effective in developing scientific process skills, consistent feedback and monitoring remain vital components, especially during interruptions in the learning process.

Poor communication due to unstable internet or mobile signals ($M = 4.56$) and lack of transportation ($M = 4.23$)** also emerged as significant challenges. These logistical issues are consistent with those highlighted by Von Miguel et al., who noted that technological and infrastructural limitations often reduce the effectiveness of DLP, particularly in remote or underserved areas. Moreover, learners' difficulty in understanding LAS instructions ($M = 3.11$) and low motivation to study independently ($M = 2.26$) further indicate that while the DLP encourages self-directed learning, it requires adequate scaffolding and motivational strategies an aspect supported by Bernido and Bernido (2020) who advocate for the integration of essentials over peripherals in DLP design to ensure learner autonomy and resilience.

In conclusion, the findings highlight that although the DLP holds promise in flexible learning delivery, its successful implementation amid adverse weather hinges on improved communication, parental support, learner motivation, and logistical preparedness. These insights underscore the importance of refining the program's support structures to enhance its adaptability to real-world challenges.

Proposed Strategies to Strengthen Learning Continuity for Multigrade Learners Through DLP Under Adverse Weather Conditions

The implementation of the Dynamic Learning Program (DLP) has shown positive outcomes in sustaining learning among multigrade learners, particularly during adverse weather conditions, as evidenced by improved post-test results. However, further enhancing learning continuity requires the introduction of targeted strategies. These include promoting instructional flexibility to cater to diverse learner needs, improving the distribution and retrieval system of Learning Activity Sheets (LAS), and strengthening learner motivation through engaging and interactive methods, such as gamification. Equally important is the capacity building of teachers, parents, and local leaders to ensure collective support in education delivery. Establishing community-based learning networks and implementing consistent monitoring and evaluation mechanisms will also ensure that DLP implementation remains responsive and adaptive. Through these strategies, the resilience of multigrade education in weather-disrupted contexts can be reinforced, ensuring that no learner is left behind.

IV. Conclusion

1. The Dynamic Learning Program (DLP) is highly implemented in multigrade settings, even under adverse weather conditions, particularly in instructional delivery, LAS access, learning engagement, and communication. However, continuous efforts are needed to address challenges in personalized instruction, output retrieval, and learner motivation in the absence of face-to-face interaction.

2. The statistically significant improvement in the pre- and post-test scores of learners in Grades 3 and 4 confirms that the DLP is an effective strategy for enhancing academic performance amid weather-related disruptions.
3. The notable increase in learner achievement from the 'Did Not Meet Expectations' level to 'Very Satisfactory' in the post-test confirms the positive impact of the DLP in maintaining educational continuity and improving academic outcomes during challenging weather conditions.
4. Despite the DLP's effectiveness, teachers and learners continue to encounter notable challenges during implementation, particularly in terms of parental involvement, learner monitoring, communication, and logistical concerns, indicating the need for stronger systemic and community-based support.
5. While the DLP successfully sustains learner performance amid adverse weather, maximizing its impact requires the integration of strategic interventions focused on instructional adaptability, efficient LAS management, learner motivation, and enhanced collaboration among educators, families, and local stakeholders

V. Recommendations

1. To address the limitations of personalized instruction and maintain learner engagement without face-to-face interaction, teachers should be trained in differentiated instruction techniques that are suited for modular learning. Additionally, integrating self-reflection prompts and motivational activities into the LAS can help sustain learners' interest and independence.
2. Given the significant improvement in academic performance, it is recommended that schools institutionalize the use of the DLP in multigrade settings, especially in geographically isolated and disaster-prone areas. The Department of Education should support this through formal recognition, continuous capacity-building for teachers, and provision of DLP-aligned resources.
3. To further improve learner outcomes, schools should conduct periodic diagnostic, formative, and summative assessments. These should be used to track progress and adjust learning strategies as needed. Simple feedback loops involving learners and parents can ensure that learning gaps are identified and addressed promptly.
4. Schools should establish or reinforce community support systems that include regular orientation sessions for parents on their role in DLP implementation. Barangay officials and community organizations can also be mobilized to assist in delivering and retrieving learning modules during extreme weather conditions.

5. To overcome logistical challenges, LGUs and DepEd must allocate resources specifically for the transportation and safe distribution of LAS during adverse weather conditions. Creating learning hubs in accessible areas and providing communication tools (e.g., two-way radios, mobile load support for teachers) can also bridge communication gaps.
6. It is recommended that teachers, school heads, parents, and LGU representatives be involved in developing localized learning continuity plans. This promotes shared ownership and ensures the sustainability and responsiveness of DLP strategies to the unique needs of multigrade learners in times of disruption.

Compliance with Ethical Standards

The researchers affirm that this study was conducted in full adherence to ethical standards for educational research. Before data collection, permission was obtained from relevant school authorities and the Schools Division Office. Informed consent was secured from all participants, including teachers, learners, and parents where applicable, ensuring that they were fully aware of the study's purpose, procedures, and their rights as respondents. Confidentiality and anonymity were strictly maintained throughout the research process. No personally identifiable information was disclosed or used in any part of the study. Participation was voluntary, and respondents were given the freedom to withdraw at any stage without any consequence. The research instruments were reviewed and validated by experts to ensure their appropriateness and alignment with the study's objectives. The study did not involve any physical, psychological, or emotional harm to participants. This research adheres to the ethical guidelines established by the Department of Education and upholds the principles of respect, integrity, and accountability throughout its phases.

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