

Analysis On The Effectiveness Of Printed Modules And Instructional Videos: Basis For Action Plan

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Abstract

Schools across the country implemented Modular Distance Learning (MDL) under the Basic Education Learning Continuity Plan (BE-LCP, DO 12, s. 2020) to ensure the continuity of education amid the threats and uncertainties brought about by the COVID-19 pandemic. This study aimed to determine the effectiveness of printed modules and instructional videos on the learning of Grade 1 pupils in Filipino in selected schools in Malasiqui District II during the school year 2020–2021. Specifically, it sought to: (1) assess the level of performance in Filipino of Grade 1 learners using printed modules; (2) assess the level of performance of Grade 1 learners using instructional videos; and (3) identify the significant difference between the two groups' performance levels. A descriptive-developmental research design was employed. Quantitative data were analyzed using frequency

counts and percentages to determine learners' performance levels, while a t-test was used to establish the significance of differences between the two groups. The findings revealed that printed modules were effective as an alternative learning delivery modality. However, instructional videos proved to be more effective in improving learners' performance in Filipino. An action plan was developed based on the results to further enhance the teaching and learning process under MDL. The study may guide educators in reflecting on and refining their instructional strategies to improve learning outcomes. Additionally, future researchers focusing on distance learning and the use of instructional materials such as printed modules and videos may use the findings of this study as a valuable reference.

Keywords: printed modules, instructional videos, effectiveness, level of performance Grade 1 pupils, modular distance learning

INTRODUCTION

Education is a fundamental right and a powerful tool for personal growth, social development, and national progress. It plays a critical role in shaping individuals' lives and societies at large. Without access to quality education, it becomes difficult for individuals to attain a better quality of life. Teaching and

learning are central to this process, and educators continuously innovate through the use of various strategies and instructional materials to make learning more effective and meaningful. Over time, this has resulted in a rich array of teaching and learning methods designed to enhance learner outcomes.

However, the global education landscape was significantly disrupted by the COVID-19 pandemic. With over 1.6 billion learners affected by school closures in more than 190 countries, it marked the largest disruption in educational history (UNESCO, 2020). The health crisis compelled governments and educational institutions to implement strict social distancing protocols, forcing the suspension of in-person classes and prompting a rapid shift to alternative learning modalities such as online, modular, and blended learning (UNICEF, 2020).

In Southeast Asia, education ministries responded with collaborative policy discussions. During the SEAMEO Ministerial Policy e-Forum, regional leaders—including those from the Philippines—shared adaptive strategies to ensure learning continuity during and after the pandemic (SEAMEO, 2021). Singapore's Minister of Education highlighted the potential long-term impacts of extended school closures on both academic performance and student well-being (Kung, 2021).

In the Philippines, the Department of Education implemented the Basic Education Learning Continuity Plan (BE-LCP) through DepEd Order No. 12, s. 2020. This framework introduced various distance learning modalities to ensure education continued while safeguarding health. Among these, Modular Distance Learning (MDL)—using printed or digital modules—was the most widely adopted, especially in remote and underserved areas (DepEd, 2020). However, challenges quickly emerged. Many learners struggled with independent study, and parents found it difficult to assist their children due to limited educational backgrounds (Dangle & Sumaoang, 2021).

To enhance the effectiveness of modular learning, the Schools Division Office I of Pangasinan issued Division Memorandum No. 018, s. 2021, encouraging the use of instructional videos to support printed modules. These teacher-guided videos aimed to improve comprehension and engagement by providing audio-visual explanations aligned with the lessons. Mayer (2021) supports the use of such multimedia tools, noting that instructional videos enhance learning by activating multiple senses and allowing learners to revisit content as needed.

Against this background, the researcher attempted to determine the effectiveness of printed modules and instructional videos in the academic performance of Grade 1 learners in Filipino. The ultimate goal of this study is to provide evidence-based insights that can inform the development of an action plan aimed at further improving the delivery of distance learning. By identifying which modality—or combination of modalities—is most effective, the study seeks to contribute to more responsive, inclusive, and efficient teaching strategies tailored to learners' needs in the post-pandemic era or in times of adversities.

RESEARCH QUESTIONS

This study determined the effectiveness of printed modules and instructional videos on the learning of Grade 1 learners in Filipino in the selected schools in Malasiqui District II for the school year 2020-2021.

Specifically, it answered the following questions:

1. What is the level of performance in Filipino of the public elementary school Grade 1 learners using printed modules?
2. What is the level of performance in Filipino of the public elementary school Grade 1 learners using instructional videos?
3. Is the level of performance of the public elementary school Grade 1 learners using printed modules significantly different from the level of performance of the pupils using instructional videos?

4. Based on the results of the study, what plan of action can be recommended to improve the teaching and learning under modular distance learning?

SCOPE AND LIMITATIONS

This study was delimited to data reflecting the level of performance in Filipino of selected Grade 1 public elementary school learners, particularly their periodic grades in the 4th Quarter, using printed modules and using instructional videos in Malasiqui District II during the School Year 2020-2021.

Furthermore, since the data only came from public elementary school Grade 1 learners in Malasiqui School District II, then the findings, conclusions, and recommendation are only applicable to them.

RESEARCH METHODOLOGY

a. Research Design

This study utilized the qualitative research design, specifically the quasi-experimental or comparative design. A quasi-experimental design aims to establish a cause-and-effect relationship between an independent variable and a dependent variable. Quasi-experiments are studies that evaluate interventions without using randomization. Similar to randomized trials, quasi-experiments seek to demonstrate causality between an intervention and an outcome (Campbell & Stanley, 2021; Shadish et al., 2019).

b. Sampling

The data used in this study came from the one hundred public elementary school Grade 1 learners in Malasiqui District II during the School Year 2020-2021. Fifty of these pupils used printed modules and another fifty these learners used instructional videos. These one hundred respondents were identified through purposive sampling. Moreover, so as not to violate the data privacy of the pupils, permission to conduct the study and permission to access the needed data of the pupils were first secured from the Schools Division Superintendent of SDO 1 Pangasinan. Thereafter, consent from the parents for the pupils to be involved in the study was also secured through a parental consent form.

c. Data Collection

In getting the data used to determine the level of performance in Filipino of the public elementary school Grade 1 pupils who used the printed modules and who used instructional videos, the researcher did not utilize any instrument as the data (4th Quarter Academic Grades in Filipino Grade 1) are available in the records of the school respondents of Malasiqui District II.

To provide answers for problem numbers 1 and 2, frequency count and percentage were utilized. To answer sub-problem number 3, T-test: two-Sample Assuming Equal Variances was utilized. And to problem number 4 did not need any treatment.

DISCUSSIONS OF RESULTS AND RECOMMENDATIONS

Level of Performance in Filipino of the Grade 1 Learners Using Printed Modules

To provide answers to problem 1, the academic grades in Filipino in the 4th Quarter of the Grade 1 learners using printed modules were examined and analyzed.

The level of performance in Filipino in the 4th Quarter of the Grade 1 learners using printed modules is presented by Table 1.

Table 1
Level of Performance in Filipino of the Grade 1 Learners
Using Printed Modules

Grade	Using Printed Module		Description
	F	%	
74 and below	0	0%	Did not meet expectations
75-79	0	0%	Fairly Satisfactory
80-84	13	26%	Satisfactory
85-89	31	62%	Very Satisfactory
90-94	6	12%	Outstanding
95-100	0	0%	Excellent
Total	50	100%	
Mean		87.00	Very Satisfactory

Table 1 shows that 26% of Grade 1 learners demonstrated a satisfactory performance in Filipino during the 4th Quarter, while 62% achieved a very satisfactory level, and 12% attained outstanding performance. The overall mean grade was 87, indicating a very satisfactory level of performance. These results suggest that the use of printed modules is an effective alternative learning delivery modality, contributing positively to learner performance in Filipino during the pandemic.

Level of Performance in Filipino of the Grade 1 Learners under Instructional Videos

To provide answers to the second problem, the academic grades in Filipino in the 4th Quarter of the Grade 1 learners using instructional videos were examined and analyzed.

The level of performance in Filipino in the 4th Grading Period of the learners using instructional videos is presented by Table 2.

Table 2
Level of Performance in Filipino of the Grade 1 Learners
Using Instructional Videos

Grade	Using Printed Module		Description
	F	%	
74 and below	0	0%	Did not meet expectations
75-79	0	0%	Fairly Satisfactory
80-84	0	0%	Satisfactory
85-89	23	46%	Very Satisfactory
90-94	19	38%	Outstanding
95-100	8	16%	Excellent
Total	50	100%	
Mean		90.00	Outstanding

Table 2 reveals that 46% of Grade 1 learners achieved a very satisfactory performance in Filipino, 38% reached an outstanding level, and 16% attained excellent performance during the 4th Quarter. The mean grade was 90, categorized as outstanding. These findings indicate that the use of instructional videos significantly enhanced learner performance, making it a highly effective distance learning delivery modality during the pandemic.

Difference in the Level of Performance of the Grade 1 Learners Using Printed Modules and Using Instructional Videos

To provide answer to the third problem, the researcher worked on the null hypothesis that there is no significant difference in the level of performance in Filipino of the Grade 1 learners using printed modules and using instructional videos. Thereafter, the researcher compared the grades of the Grade 1 learners in Filipino in the 4th Quarter using printed modules and using instructional videos using the t-test at 0.05 level of significance. Table 4 presents the results.

Table 3

The Computed p Value of the Level of Performance in Filipino of the Grade 1 Learners Using Printed Modules and Using Instructional Videos

Variables	N	Mean	SD	t-value	p-value
Printed Modules	50	87	2.91	6.10*	0.000
Instructional Videos	50	90	3.25		

*Legend: * Significant at t-critical (0.05, 99df) = 1.98*

Table 3 shows a computed p-value of 0.000, which is significantly lower than the 0.05 level of significance. This indicates a statistically significant difference between the performance of Grade 1 learners using printed modules (M = 87) and those using instructional videos (M = 90) in Filipino during the 4th Quarter. Thus, the null hypothesis is rejected, confirming that instructional videos had a more positive impact on learner performance compared to printed modules.

Table 4

Comparison of the Mean Percentage and Average Grades of the Grade 1 Learners Using Printed Modules and of the Grade 1 Using Instructional Videos

Level of Performance	Pupils Using Printed Modules	Pupils Using Instructional Videos
Did not meet expectations	0%	0%
Fairly Satisfactory	0%	0%
Satisfactory	26%	0%
Very Satisfactory	62%	46%
Outstanding	12%	38%
Excellent	0%	16%
Average Mean	87.00	90.00

Table 4 highlights the comparative performance levels of Grade 1 learners using printed modules and those using instructional videos. While 26% of learners using printed modules achieved a Satisfactory rating, none from the instructional video group fell within this range. Conversely, a higher percentage of learners using instructional videos achieved Outstanding (38%) and Excellent (16%) levels, compared to only 12% achieving Outstanding and none in the Excellent category from the printed module group. The average grades further support this difference, with learners using instructional videos attaining a mean score of 90, compared to 87 for those using printed modules. These results suggest that instructional videos are more effective in enhancing learner performance in Filipino than printed modules alone.

Plan of Action to Improve Teaching and Learning under Modular Distance Learning Modality

This part of the presents answers to the last problem of the study, which is – “Based on the results, what plan of action may be made to improve the teaching and learning under modular distance learning modality?”

To provide answers to the 4th problem, the researcher took into consideration the finding that the pupils performed better using instructional videos.

What follows is the proposal plan of action to improve the teaching and learning under modular distance learning?

ACTION PLAN TO IMPROVE THE INSTRUCTION UNDER MODULAR DISTANCE LEARNING MODALITY IN MALASIQUI DISTRICT II

PROGRAM / ACTIVITY	STRATEGY	OBJECTIVES	PERSON INVOLVED	TIME FRAME	EXPECTED OUTPUT
1. Monitoring Compliance with Curriculum Standards	<ul style="list-style-type: none"> - Communicate and monitor teaching personnel. - Conduct technical assistance and validate development plans. - Provide validated resources and training links. 	<ul style="list-style-type: none"> - Ensure quality implementation of MDL. - Provide support in crafting MDL development plans. - Promote resource utilization for instruction. 	Public Schools District Supervisor (PSDS), School Heads, Master Teachers, ICT Coordinator	Year-round	<ul style="list-style-type: none"> - Memo and reports - Modular Development Plans - Shared resource links
2. Strengthening Stakeholder Engagement	<ul style="list-style-type: none"> - Communicate with parents and stakeholders. - Supervise MDL delivery. - Provide technical assistance in 	<ul style="list-style-type: none"> - Involve parents and stakeholders in MDL. - Ensure effective MDL delivery. - Support teachers with report 	PSDS, School Heads, Master Teachers, Parents	Year-round	<ul style="list-style-type: none"> - Communication letters - Attendance sheets - Monitoring and Coaching

	submitting reports. - Supervise class opening preparations.	submission and preparations.			Forms - Accomplished school forms and class programs
3. Enhancing the Reading Program	- Assess reading competencies. - Involve parents and PTA in reading initiatives. - Track reading program for struggling readers.	- Improve reading proficiency. - Raise awareness about learners' reading levels. - Address reading challenges through intervention.	PSDS, School Heads, Master Teachers, Parents	1st & 4th Quarter (Orientation); Monthly (Monitoring)	- Pre- and post-test results - Orientation attendance - Monthly reading reports
4. Monitoring School Facilities and Equipment	- Conduct regular facility checks. - Consult with facility coordinators. - Summarize facility status.	- Maintain safe and functional school environment.	School Heads, Property Custodian, Teachers	Year-round (Monitoring); 1st Quarter (Reporting)	- Facility checklists - Summary reports
5. Promoting Use of Technology	- Promote instructional videos and infomercials. - Create group chats for communication. - Form ICT team to support teachers.	- Raise awareness and usage of digital tools. - Improve communication and collaboration. - Provide technical support in video creation.	School Heads, ICT Coordinators, All Teachers	Year-round	- Instructional videos - Active chat groups - List of ICT team and outputs
6. Supporting INSET and SLAC Activities	- Coordinate with ICT experts. - Relay relevant memoranda. - Conduct weekly reporting. - Develop Brigada Eskwela hotline and infomercials. - Create platform for tracking learner movements.	- Enhance teacher skills for MDL. - Keep teachers informed and supported. - Provide communication channels for school operations.	School Heads, ICT Coordinators, OBE & BE Coordinators, All Teachers	Quarterly	- Training records - Weekly reports - Hotline system and infomercials - Online learner movement tracking
7. Supporting Health and Welfare Programs	- Develop online campaigns for safety and protocols. - Coordinate with health authorities for testing.	- Ensure health and safety of all school personnel. - Prepare and implement	School Heads, Health Coordinators, Teachers	As needed / Per advisory	- Health bulletins - Testing records - Wellness programs

	- Promote wellness activities.	contingency measures.			
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Summary of Findings

After a thorough evaluation of the data gathered, the following findings were established:

1. The Grade 1 pupils who used printed modules demonstrated a very satisfactory level of performance in Filipino, as evidenced by their computed mean percentage score of 87.
2. The Grade 1 pupils who used instructional videos exhibited an outstanding level of performance in Filipino, as indicated by their computed mean percentage score of 90.
3. A significant difference was found in the performance levels between Grade 1 pupils using printed modules and those using instructional videos, as revealed by the computed p-value of 0.00, based on the mean percentage scores.
4. Grade 1 pupils who used instructional videos performed better than those who used printed modules, as shown by the comparison of their average scores—90 for the instructional video group and 87 for the printed module group.

Conclusion

The use of printed modules is an effective alternative distance learning delivery modality in the teaching and learning of Filipino in this pandemic time. But the use of instructional videos is more effective and far better than the use of printed modules.

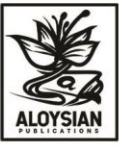
Recommendations

1. Promote greater use of instructional videos in the teaching of Filipino, particularly for Grade 1 pupils, to maximize learning outcomes and sustain outstanding performance levels.
2. Develop and enhance instructional video materials to cover various Filipino competencies, ensuring that they are engaging, age-appropriate, and aligned with the curriculum.
3. Provide training to teachers on the effective integration of instructional videos into daily lessons to optimize their impact on pupil learning.
4. Consider blended approaches where both printed modules and instructional videos are used, ensuring that learning remains flexible and accessible to all pupils, especially those with limited access to technology.
5. Further research is recommended to explore the long-term effects of using instructional videos across different subjects and grade levels.
6. It is recommended to implement the developed Action Plan to improve modular distance learning through enhanced printed and instructional video formats. The plan provides strategies to upgrade learning materials, build teacher capacity, promote learner engagement, and ensure accessibility, serving as a guide to effectively support diverse learners and sustain progress.
7. Once the study is approved and implemented the results will be disseminated to all School Heads and Public Schools District Supervisor. The results of the study could be discussed among the key persons to disseminate the results through Learning Action Cell (LAC) among the concerned teachers.

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