



ALTERNATIVE DELIVERY MODE IN ACADEMIC PERFORMANCE OF JUNIOR HIGH SCHOOL STUDENTS TOWARDS PROPOSED IMPLEMENTATION GUIDELINES

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ABSTRACT

This study investigates the impact of alternate delivery methods on the academic performance of junior high school students at Bayugan National Comprehensive High School during the second grading period of the 2022-2023 school year. Employing descriptive research methods, the study focused on the "what" aspects of the issue, using a survey to gather data from 35 students enrolled in alternative delivery modes. Academic performance was measured using students' average grades. The survey, divided into categories like learning resources and digital packets, revealed a significant correlation between alternative delivery modes and academic achievement, as indicated by a Spearman Rho p-value of 0.000. These findings provide valuable insights for future research and educational strategies in various delivery modes.

Keywords: Alternative delivery mode, Learning resource materials, Digital packets, Worksheets/ Activity sheets, and Printed modules

INTRODUCTION

Following the pandemic, various educational modalities were adopted across different grade levels, with some proving successful. However, transitioning between modalities revealed significant challenges. Students struggled to submit school projects on time due to financial constraints and poor Wi-Fi connections, particularly in rural areas. Additionally, distractions like online gaming and social media engagement caused delays in module submission. Limited funds exacerbated classroom challenges, leading to larger class sizes and reduced access to technology and

educational resources, hindering effective teaching. In response, the Philippine government issued DepEd Order No. 54 series of 2012, outlining Policy Guidelines on implementing Alternative Delivery Modes (ADMs) to address these issues.

Some of the schools in the Philippines have already implemented the ADMS and one of those schools is Bayugan National Comprehensive High School (BNCHS) situated in Bayugan City, Agusan del Sur, Philippines. The researcher wanted to know the extent of implementation of ADMS at BNCHS in terms of Learning Resource Materials (Multimedia), Digital

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Packets, Worksheets, and Printed Modules as to the academic performance of the students during the second grading period of the school year 2022-2023.

In 2020, Sari et al. published a study evaluating the effectiveness of multimedia learning resources in teaching mathematics to junior high school students in Indonesia. The findings indicated that incorporating these multimedia materials significantly enhanced student engagement and improved mathematical achievement.

Similarly, Ong et al. (2020) investigated the impact of digital packet use on the academic performance of Malaysian secondary school students. Their research concluded that students utilizing digital packets demonstrated markedly better academic results than those who did not use these resources.

The role of worksheets in academic achievement has been the focus of several studies. For instance, Ahmed's 2019 research examined how using worksheets affected the academic performance of secondary school students in mathematics. The outcomes showed that students who engaged with worksheets had a higher academic performance than those who did not.

Another significant study by Fongkaew and Pinyaphatong in 2020 assessed the effectiveness of printed modules as teaching aids for English reading and writing among Thai students. Their findings revealed that using printed modules enhanced student performance and increased engagement, especially among non-native English speakers.

Given the rapid evolution of new media and the proliferation of different learning modalities, educators often face challenges adapting to these changes. The results of these studies provide valuable insights and are instrumental in guiding

educators through the dynamic landscape of contemporary educational methodologies.

OBJECTIVES OF THE STUDY

This study was carried out to: 1) ascertain the extent of the use of learning resource materials, digital packets, worksheets/activity sheets, and printed modules as an Alternative Delivery Mode for Modular Distance Learning (MDL); 2) to find out the academic performance level of junior high school students at Bayugan National Comprehensive High School for the school year 2022–2023 during the second grading period; 3) to establish a significant connection between the use of an Alternative Delivery Mode and the academic performance of junior high school students; and 4) to propose guidelines for the use of an Alternative Delivery Mode to enhance the academic performance of junior high school students.

METHODOLOGY

The population, sample and sampling method, research instrument, data collection process, and statistical analysis of the data will all be covered in this chapter.

The researcher used descriptive research methodologies. According to Bhat (2018), descriptive research is a kind of study that describes the characteristics of the population or subject being studied. In this methodology, the "what" of the study issue received more attention than the "why." Descriptive research entails more than just tabulating data. What is involved are the elements or the perception of the significance or meaning of what is described.

This means that descriptions frequently include comparisons and contrasts including measures, groups, interpretations, and assessments.

The junior high school students at BNCHS in Grades 7 through 10 who are enrolled in the school's Alternative Delivery Mode (ADM) program for the academic year 2022–2023 are the study's respondents. There were three pupils in Grade 7, twelve in Grade 8, eleven in Grade 9, and ten in Grade 10. There are 35 respondents to this study.

The data-gathering tool utilized to address the specified study topics was a self-constructed questionnaire. It is a research tool consisting of several questions and other prompts to elicit participant data. There were four parts to it.

Part I focused on learning resource materials, Part II featured the digital packets, Part III covered the worksheet, and Part IV centered on printed modules. The questionnaire focused on how they utilized it in the teaching-learning process

The researcher reviewed several readings and resource materials before creating the questionnaire. In addition, the researcher conferred with some experts and professionals regarding implementation-related matters. With the invaluable assistance of his research adviser, the researcher began to develop the initial draft of the questionnaire once it was determined that there were sufficient items to gather the necessary data. Before implementation, the instrument underwent evaluations for validity and reliability.

Before distributing and administering questionnaire copies, the researcher composed a letter of request addressed to BNCHS's principal. After obtaining approval and endorsement, the researcher personally distributed and collected the surveys from the respondents. Data cleaning was done by the researcher to produce more accurate and trustworthy information. The researcher used a statistician's help to handle the data from the questionnaire after cleaning, tallying, and tabulating the data. Using tables to aid in clarity of presentation, the researcher presented,

interpreted, and analyzed the treated data. The responses were evaluated and analyzed with the use of pertinent statistical software.

The collected data was interpreted using the following statistical instruments.

The data necessary to address research question no. 1, which concerns the Alternative Delivery Mode deployment level across multiple selected areas, was analyzed using the arithmetic mean. In response to research question number two regarding the academic achievement of junior high school students, this statistical method was employed.

Spearman r. This was done to ascertain whether the respondents' performance level and implementation status were significantly correlated, as specified in problem number 3. The resulting Spearman r formula is

$$r = \frac{\sum(x - \bar{x})(y - \bar{y})}{\sqrt{\sum(x - \bar{x})^2 \sum(y - \bar{y})^2}}$$

The variation in the data points surrounding the line of greatest fit increases as r approaches 0. Reject the null hypothesis (H_0) if the p -value is less than or equal to the designated significance level; if not, accept the H_0 .

RESULTS AND DISCUSSIONS

The findings and a thorough analysis of the data gathered for the study are presented in this chapter. The information acquired from survey questionnaire responses provided the basis for its conclusions. After that, a selection, analysis, and interpretation of these data produced a response to the study question.

1. The extent of implementing the Alternative Delivery Mode for Modular Distance Learning (MDL)

1.1. In terms of Learning Resource Materials



With a weighted mean of 3.85, the table illustrates the "Great Extent" of the Alternative Delivery Mode's for (MDL) deployment in terms of learning resource materials.

Table 1
Category on Learning Resource Materials on Alternative Delivery Mode for Modular Distance Learning

Statements	Mean	Verbal Interpretation	Std. Deviation
1. I used our textbook in learning our lessons	4.42	Greatest Extent	.698
2. I used objects for simulation to better understand the concept	3.85	Great Extent	.550
3. I was given a research project to work on	3.85	Great Extent	.733
4. I used visuals such as charts, real objects, photographs, transparencies	3.68	Great Extent	.631
5. I also used slides, tapes, films, filmstrips, television, video	3.45	Great Extent	.741
Weighted Mean	3.85	Great Extent	.671

*Greatest Extent (GE) 4.21-5.00; Great Extent (GE) 3.41-4.20; Moderate Extent (ME) 2.61-3.40; Some Extent (SE) 1.81-2.60; Least Extent (LE) 1.00-1.80

The chart also demonstrates that, with a weighted mean of 4.42, the statement "I used our textbook in learning our lessons" received the highest score according to the results. With a weighted mean of 3.45, the statement "I also used slides, tapes, films, filmstrips, television, and video" received the lowest rating according to the results, as indicated by the table.

Thus, this means that Learning Resource Materials have a big role in helping students improve academic performance specifically in providing learning materials similar to the study result of Sari et al. (2020). Kousar and Bhatti (2018) examined how multimedia learning resources improved student involvement, comprehension, and academic achievement in computer science.

1.2. In terms of Digital Packets

With a weighted mean of 3.13, the table indicates the "Moderate Extent" of the use of digital packets for the Alternative Delivery Mode for Modular Distance Learning (MDL).

Table 2
Category on Digital Packets on Alternative Delivery Mode for Modular Distance Learning

Statements	Mean	Verbal Interpretation	Std. Deviation
1. I was exposed to digital packets based on objectives and content of the lesson	3.40	Moderate Extent	.847
2. I used digital packets in answering our assessment	3.14	Moderate Extent	.879
3. The digital packets are accessible	3.02	Moderate Extent	.923
4. The digital packets are user-friendly	3.11	Moderate Extent	.718
5. The digital packets are interactive	3.00	Moderate Extent	.804
Weighted Mean	3.13	Moderate Extent	.834

With a weighted mean of 3.13, the table indicates the "Moderate Extent" of the use of digital packets for the Alternative Delivery Mode for Modular Distance Learning (MDL).

Additionally, the chart demonstrates that, with a weighted mean of 3.40, the statement "I was exposed to digital packets based on objectives and content of the lesson" received the highest score based on the results. The table also revealed that, with a weighted mean of 3.00, the statement "The digital packets are interactive" received the lowest score according to the data.

Thus, this means that the features and capacity of the technologies students use to study affect their performance, which is congruent with the idea of Ong et al. (2020). Wang et al.'s (2020) study looked into the usage of digital packets as a measure of student involvement and academic performance in online courses. According to the study, students who interacted more with the digital packets scored better academically and were likelier to pass the course.

1.3. In terms of Worksheets /Activity Sheets

With a weighted mean of 3.48, the Modular Distance Learning (MDL) mode has a "Great Extent" in terms of worksheets and activity sheets.

The chart additionally demonstrates that, with a weighted mean of 3.82, the statement "The worksheets are prepared in a well-organized manner" received the highest ranking according to the results. With a weighted mean of 3.22, the



statement "The activities in the worksheets are presented from simple to complex" had the lowest rating according to the results, as indicated by the table.

Table 3
Category on Worksheets/Activity Sheets on Alternative Delivery Mode for Modular Distance Learning

Statements	Mean	Verbal Interpretation	Std. Deviation
1. The worksheets are prepared in a well-organized manner	3.82	Great Extent	.785
2. The activities in the worksheets are aligned to the topics discussed	3.60	Great Extent	.603
3. The worksheets are free from possible error	3.42	Great Extent	.654
4. The activities in the worksheets are presented from simple to <u>complex</u>	3.22	Moderate Extent	.598
5. I monitor my progress through the worksheets	3.37	Moderate Extent	.598
Weighted Mean	3.48	Great Extent	.647

This indicates that the students found the worksheets to be neither straightforward nor complicated, which could have a negative impact on their academic performance. Worksheets can be an effective tool for assessing student learning and improving academic performance, in line with the findings of Chidambaram et al. (2019). Worksheets are a helpful tool in our ongoing efforts to encourage students to think throughout class, according to Wyels, C. (2021). Worksheets used in class may serve as a guide for students learning outside of the classroom.

1.4. In terms of Printed Modules

Table 4
Category on Printed Modules on Alternative Delivery Mode for Modular Distance Learning

Statements	Mean	Verbal Interpretation	Std. Deviation
1. I am being provided with the printed modules	4.11	Great Extent	.796
2. The content of the modules is updated	3.82	Great Extent	.706
3. The given activities in the module are enough for the allotted time	3.65	Great Extent	.591
4. I always read and understand the content in the module before answering the exercises	3.45	Great Extent	.780
5. I return the answered modules to my teachers at a designated place, date, and time	3.42	Great Extent	.698
Weighted Mean	3.69	Great Extent	.714

With a weighted mean of 3.69, the table indicates the "Great Extent" to which the Alternative Delivery Mode for Modular Distance Learning (MDL) has been implemented in terms of printed modules.

The table also demonstrates that, with a weighted mean of 4.11, the statement "I am being provided with the printed modules" received the highest ranking according to the results. The statement "I return the answered modules to my teachers at a designated place, date, and time." received the lowest score with a weighted mean of 3.42, according to the table, which also displayed the findings.

Thus, students struggle to finish their activities so they tend to submit it late. Using printed modules improved student engagement and performance, especially for students with lower levels of proficiency which is in line with the idea of Fongkaew and Pinyaphatong (2020). Additionally, Flores et al. (2019) looked at the efficiency of printed modules in a distance learning program for Filipino elementary school pupils. Especially for students without access to digital devices or the internet, the study indicated that using printed modules was a useful strategy for boosting student engagement and academic success.

2. The level of academic performance in Junior High School students for school year 2022-2023 in 2nd grading period

Table 5
Summary of academic performance in Junior High School students for the school year 2022-2023 in 2nd grading period

Grading Scale	Verbal Interpretation	F	Percentage
90 – 100	Outstanding	0	0%
85 – 89	Very Satisfactory	0	0%
80 – 84	Satisfactory	10	28.58%
75 – 79	Fairly Satisfactory	25	71.42%
Below 75	Did not meet the expectation	0	0%
Total	-	35	100%

*Reference DO 8 s 2015 Grading System



The chart also demonstrates that, according to the results, junior high school students' academic performance was rated as Satisfactory and Fairly Satisfactory, with respective total percentages of 71.42 percent and 28.58 percent.

Thus, this means that the academic performance of the student for the second grading period was only on the Average level.

3. The relationship between the alternative delivery mode and the academic performance of junior high school students

With R-values equal to .889, .347, .778, and .518 respectively, the table demonstrated the Very Strong, Moderate, Very Strong, and Strong relationships between the alternative delivery mode and the academic performance of junior high school students in terms of Learning Resource Material, Digital Packets, Worksheets, and Printed Modules.

Table 6
Relationship between the alternative delivery mode and the academic performance of junior high school students

Relationship between alternative delivery mode and the academic performance of JHS in terms of	r-value	Interpretation	p-value	Decision
Learning Resource Material	.889	Very Strong Relationship	.000	Rejected
Digital Packets	.347	Moderate Relationship	.000	Rejected
Worksheets	.778	Very Strong Relationship	.000	Rejected
Printed modules	.518	Strong Relationship	.000	Rejected

**Very Strong Relationship ≥ 0.70 ; Strong Relationship 0.40-0.69; Moderate Relationship 0.30-0.39; Weak Relationship 0.20-0.29; No or Negligible Relationship 0.01-0.19 (Adapted from Dancey and Reidy, 2004)*

Additionally, the table demonstrates that for Learning Resource Materials, Digital Packets, Worksheets, and Printed Modules, the Spearman Rho p-value is equal to 0.000, which is less than

0.05 significance level. This indicates a significant correlation between the academic performance of junior high school students and the alternative delivery mode.

The findings also suggest that the null hypothesis, which holds that there is no meaningful correlation between junior high school student's academic performance and alternate delivery modes, is rejected.

4. Proposed Implementation Guidelines based on the findings of the study

The proposed guidelines are focused on the category of Digital Packets which has the lowest weighted mean of 3.13 among the four categories and the statement in each category that obtained the lowest weighted mean. Proposed Implementation Guidelines in Alternative Delivery Mode (ADM) on Modular Distance Learning (MDL).

1. The school shall schedule an orientation of the Junior High School on the different digital packets to accomplish the learning objectives that cover the curriculum. This scheduled orientation will be attended only by the students enrolling in the ADM-MDL program.

2. To effectively deliver the program, the school shall see to it that all the ADM-MDL Junior High School students are familiar with the digital packets assessment tools being used in the teaching-learning process.

3. The school shall survey all ADM-MDL Junior High School students as to the accessibility and availability of the digital packets in use. The survey result would lead them to design a strategy to exhaust all the available resources to address the accessibility and availability problem.

4. The school plans to collaborate with experts in selecting suitable interactive digital packages for the teaching-learning process. This approach is anticipated to significantly enhance student motivation in completing their learning assignments.

5. The school shall provide technical assistance and training services to the teachers in making or choosing efficient and effective slides, tapes, films, film strips, and television videos that will be used in the teaching-learning process. This will supplement their understanding of the topic towards fulfilling the learning objectives.

6. The school shall ensure that the activities in the worksheets are presented clearly and understandable by the level of its learners. This will serve as a supplementary learning resource for learners to engage in and further develop the desired knowledge and skills they acquire from different lessons.

7. The school shall ensure an accessible designated place and a learner-convenient date and time for returning the answered modules from the ADM-MDL junior high school students. This will help the students be eager to do their activities, for they have enough time to do all their assigned tasks.

CONCLUSIONS

The findings from this study reveal that the academic performance of junior high school students is significantly influenced by the use of various alternative delivery modes in modular distance learning, such as learning resource materials, digital packets, worksheets and activity sheets, and printed modules. The data indicates that the academic achievement of these students predominantly falls within the satisfactory to quite satisfactory range, with 28.58 percent achieving

satisfactory and 71.42 percent achieving quite satisfactory results, suggesting an overall average level of academic performance.

Furthermore, the study uncovered a substantial correlation between the students' academic performance and the alternative delivery modes. Specifically, there was a very strong correlation with learning resource materials (r-value of .889), a moderate correlation with digital packets (r-value of .347), a very strong correlation with worksheets (r-value of .778), and a strong correlation with printed modules (r-value of .518). These correlations imply that the use of these alternative delivery modes is significantly linked to the academic outcomes of junior high school students.

RECOMMENDATIONS

To elevate the academic performance of junior high school students under the Alternative Delivery Mode - Modular Distance Learning (ADM-MDL) program, several key recommendations have been proposed based on the findings of the recent study. Firstly, there's a strong emphasis on integrating modern technologies in the classroom, such as slides, tapes, films, filmstrips, television, and video, to make learning more interactive and engaging. Secondly, implementing instructional methods and tactics to boost student engagement and academic performance is crucial. These methods should facilitate students' deep, rigorous, and interesting learning experiences.

Additionally, the study suggests presenting worksheets that gradually increase complexity, allowing students to comprehend and engage with the activities effectively. Additionally, while printed modules are provided, giving students sufficient time to complete and submit their requirements is important, thereby reducing undue stress and improving the quality of their submissions. Finally, strengthening community linkages is

recommended to aid in efficiently distributing and retrieving learning materials, a strategy that is also likely to enhance students' interest in their educational journey.

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