

Efficacy of Printed Modules and Challenges in Assessment in Relation to Academic Performance of Learners in Mathematics

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Abstract:

The study aimed to determine the level of efficacy of printed modules and degree of challenges in assessment in relation to the academic performance of Math 8 learners in Mathematics of Bais City National High School (BCNHS) of the Division of Bais City, Negros Oriental during the School Year 2020-2021. It examined the level of efficacy of printed modules according to integrity, usability, readability and accessibility. Moreover, this study aimed to find out whether or not significant difference exist in the following areas when grouped and compared according to sex and average family monthly income. Further, it aimed to determine the degree of challenges in assessment according to strategy, feedback mechanism and performance tasks. This study made use of descriptive research design with 237 students as respondents. Results shows that there was a significant difference in the level of efficacy of printed modules in the areas of integrity and readability but no significant difference in the areas of usability and accessibility when grouped according to sex, and no significant difference in the level of efficacy of printed modules in the aforementioned areas when grouped according to average family monthly income. It is recommended that the Chief of School Governance and Operation Division (SGOD) should craft training for upskilling teachers about assessment in the new normal. The school head should send notes of recognition to all types of learners for achieving satisfactory academic performance to motivate them to sustain or improve the current achievement status.

Keywords: Academic performance, assessment, printed modules, learners.

Introduction:

Nature of the Problem

The efficacy of study material like the self-learning module influenced the success of the distance education system (Zabidi et al., 2017). Efficacy of the self-learning modules assumes the capacity of the curriculum content to promote student learning success. These can be measured through the materials' integrity, usability, readability, and accessibility. Printed materials that are substantial in content and quality assured and effective help learners achieved the desired outcomes.

Meanwhile, DepEd Order No. 31 (2020) modifies previous assessment guidelines to suit the non-face-to-face mode of teaching and learning. However, having been used to the previous ones as stipulated in DepEd Order No. 8, series of 2015 that is still in effect, learners are expected to find difficulties with the changes. In particular, challenges on assessment strategy, feedback mechanism, and performance tasks are among those that surface.

According to Narad and Abdullah (2016), academic performance is the knowledge gained which is assessed by marks by a teacher and/or educational goals set by students and teachers to be achieved over a specific period. The data on academic performance in Math could mean the numerical grades earned by the learners per quarter in a year. These data considered are better measures because they provide greater insight into the relative level of performance of individuals and different groups of learners.

In the research venue, printed modules have been subjected to quality assurance checks before they were made available to teachers and learners. However, due to time constraints, other important concerns of the Quality Assurance Team, and unstable internet connectivity, checking has been done in haste to beat the deadlines of uploading.

In terms of assessment, unified summative tests and performance tasks have been made available through the Learning Resource Management and Development System (LRMDS). Nevertheless, since teachers have little or no chance of explaining instructions of the assessment materials, performance tasks that had no key answers were returned unanswered most of the time. Also, there has been difficulty giving feedback since learners could not be in a face-to-face encounter with teachers. Either the learners conformed to getting lower scores for not having understood the assessment materials or could have resorted to academic dishonesty as there was no close monitoring by teachers who did the rating of performance outputs and summative examinations.

In the light of actual observations and experiences, the researcher was prompted to conduct a study on variables that may influence the academic performance of learners in Math, such as the efficacy of printed modules and challenges in assessment in the new normal.

Current State of Knowledge

The development, implementation, and assessment of Self-Learning Modules (SLMs) involve rigorous processes to ensure quality and usability. According to Malipot (2020), the Department of Education (DepEd) scrutinizes SLMs for various attributes, including content alignment with curriculum standards, coherence in language, and accuracy in design and layout. These modules aim to address the Most Essential Learning Competencies (MELCs) by incorporating clear, error-free text and visuals while ensuring proper citation of third-party content. The primary goal is to make the modules comprehensive, accessible, and student-friendly. However, the usability of these modules significantly impacts their effectiveness. Dewi and Primayana (2019) emphasized that user-friendly design—characterized by clear navigation, functionality, and ease of learning—encourages students to engage with the materials independently.

Assessment plays a crucial role in enhancing the learning experience and supporting instructional decisions. Diaz (2019) underscored that assessment outcomes should not merely report results but inform teaching strategies and empower students to take responsibility for their learning. Similarly, Estrada (2021) highlighted the lack of timely and meaningful feedback in modular learning, which often leaves students uncertain about their progress. This absence of guidance and the overwhelming number of tasks in SLMs can lead to student frustration, negatively affecting their motivation and mental health. Addressing this gap in feedback mechanisms is essential to ensure the efficacy of modular learning.

Challenges in modular learning also extend to academic performance, particularly in subjects like mathematics. Guinocor et al. (2020) found a strong correlation between students' study habits and their academic performance in mathematics, indicating that effective instructional materials and strategies significantly influence learning outcomes. However, the sudden shift to remote and modular learning during the pandemic introduced logistical and pedagogical challenges, as highlighted by Cahapay (2020). Limited internet access and the restructured assessment practices, such as attendance-based grading and modified evaluation systems, disrupted the traditional metrics of academic achievement.

Collectively, these findings emphasize the need for SLMs to balance quality content, usability, and effective assessment strategies. Modules must be designed to reduce cognitive load, provide timely feedback, and support independent learning, while also addressing the diverse challenges of remote education. Enhancing these areas will not only improve students' engagement with the materials but also positively impact their academic performance and overall learning experience.

Theoretical Underpinnings

This study is grounded in three theoretical frameworks: Cognitive Load Theory, the Theory of Sustained Optimal Challenge, and the Theory of Academic Performance.

Cognitive Load Theory (CLT): Developed by John Sweller (1988), CLT focuses on how information is processed and retained by minimizing the demands on working memory. Effective instructional materials reduce unnecessary cognitive load, enhancing learning and long-term retention. For self-learning modules, this means prioritizing usability, readability, and accessibility, while presenting information in manageable, "bite-sized" portions. Poorly designed modules risk overwhelming learners, reducing retention and effectiveness. Teachers should also provide supplemental materials that align with students' learning styles.

Theory of Sustained Optimal Challenge: Introduced by Yerkes and Dodson (1908), this theory emphasizes learning through frequent assessments, timely feedback, and alignment of content difficulty with students' abilities. In modular learning, regular feedback and tailored assessments are crucial to overcoming challenges associated with remote education, ensuring students achieve mastery in their performance.

Theory of Academic Performance: Developed by Elger (2007), this theory outlines key elements for improving performance, including context, knowledge, skills, identity, personal factors, and fixed factors. It highlights the importance of fostering a positive mindset, creating a supportive learning environment, and engaging in reflective practice. Academic performance is measured through assessments but ultimately depends on empowering students to learn, grow, and achieve extraordinary outcomes.

These theories collectively guide the design, implementation, and evaluation of effective learning modules in the study.

Objectives

The study aimed to determine the level of efficacy of printed modules and degree of challenges in assessment in relation to the academic performance of Math 8 learners in Mathematics of Bais City National High School (BCNHS) of the Division of Bais City, Negros Oriental during the School Year 2020-2021. Specifically, sought to answer the following questions: 1) the level of efficacy of printed modules according to the area of integrity, usability, readability and accessibility; 2) the degree of challenges in assessment according to the area of strategy, feedback mechanism and performance tasks; 3) the significant relationship between the level of efficacy of printed modules and the level of academic performance of learners in Math; and 4) the significant relationship between the degree of challenges in assessment and the level of academic performance of learners in Math.

Methodology:

This section presents the discussion of the research methodology used, the subjects and respondents of the study, the research instruments used, the validity and reliability of the instruments, the procedure for data gathering, and the statistical tools and procedure for data analysis.

Research Design

This study utilized the descriptive method of research. According to Best and Khan (2015), the descriptive design seeks "what is" and emphasizes the discovery of ideas and insights that may affect the development of generalizations, principles, or theories. It focuses on present conditions, which aim for a new truth that could help one make an adequate and accurate interpretation of data collected. This design is the most appropriate since this study deals with recording and tabulating data on the main variables to come up with factual results. This kind of research design is suitable to use because this study is intended to find new truth about the possible influence challenges in assessment and efficacy of modules towards academic performance in Mathematics.

Study Respondents

The respondents of this study were selected from 614 Grade 8 students enrolled in the BCNHS under the Basic Education Curriculum (BEC) of the K to 12 Program. The total enrolment consisted of 325 male and 289 female students. Since the total enrolment is not manageable; thus, sampling was employed. Using Cochran's Formula, a sample of 237 is determined.

Instruments

The researcher utilized a self-made questionnaire to gather the data needed for this study. It was subjected to validity (4.84-excellent) and for reliability index for the level of efficacy of printed modules is 0.966, and for the degree of challenges in assessment is 0.916; both are interpreted to be excellent. All of them were interpreted as worthy and good; respectively. It consists of three (3) parts. The first part covers the demographic profile of the respondents in terms of sex, average family monthly income, and section. The second part of the instrument consists of items on the efficacy of printed modules in the areas of integrity, usability, readability, and accessibility. There are 7 items per area; hence, the respondents rated a total of 28 items as 5-Always, 4-Often, 3-Sometimes, 2-Rarely, and 1-Almost Never. The third part contains 21 items on the degree of challenges in assessment. The area on strategy had 7 items, the feedback mechanism had 7 and the performance task had 7. Each item was rated as 5-Always, 4-Often, 3-Sometimes, 2-Rarely and 1-Almost Never.

Data Gathering Procedure

After validity and reliability of the research instrument were sought, the researcher proceeded to ask permission from the Schools Division Superintendent of the Division of Bais City for the conduct of the study. Then the administration of the research instrument to the identified respondents after the approval was granted. However, prior to the actual administration of the questionnaires, the researcher sought the consent of the parents of the Grade 8 respondents. Letters were given to the parents who did the job of getting and returning the modules. After the parents gave the consent, the researcher distributed the questionnaires. On the other hand, the data on academic performance or grades in mathematics were collected through the respective section advisers of the respondents. All data gathered were organized and analyzed with the aid of the SPSS.

Data Analysis and Statistical Treatment

Objective No.1 used a descriptive-analytical scheme and mean to determine the level of efficacy of printed modules according to integrity, usability, readability, and accessibility.

Objective No.2 used a descriptive-analytical scheme and mean determined the degree of challenges in assessment in terms of strategy, feedback mechanism, and performance tasks.

Objective No. 3 used a relational analytical scheme and Spearman's ρ to unfold the significant relationship between the level of efficacy of printed modules and the level of academic performance of learners in Math.

Objective No. 4 used a relational analytical scheme and Spearman's ρ to unfold the significant relationship between the degree of challenges in assessment and the level of academic performance of learners in Math.

Ethical Consideration

The researcher ensured that participation in the study was entirely voluntary. Respondents' names were excluded from the data, and their identities remained confidential throughout the process. Participants were assured that all data would be handled with strict confidentiality, with the researcher being the sole individual with access. Upon completion of data tabulation and analysis, all electronic data were securely deleted, and printed materials were shredded to prevent unauthorized access and safeguard the respondents' information.

Results and Discussion:

This section deals with the presentation, analysis and interpretation of data gathered to carry out the objectives of this study. All these were made possible by following certain appropriate procedures so as to give the exact data and solution to each specific problem.

Table 1
Level of Efficacy of Printed Modules in The Area of Integrity

Items	Mean	Interpretation
<i>The module has integrity because...</i>		
1. its content is accurate.	3.82	High Level
2. its content is updated.	4.08	High Level
3. it supports the learners' understanding of knowledge.	4.11	High Level
4. it presents examples that are self-explanatory.	3.92	High Level
5. there is comprehension in the terms being used.	3.85	High Level
6. the learning objectives are made explicit to learners.	3.87	High Level
7. there is a connection to the previous lesson learned.	4.15	High Level
Overall mean	3.97	High Level

Table 1 shows the level of efficacy of printed modules in the area of integrity. As presented in the table, all items were of high level, and a sub-mean of 3.97 was obtained, interpreted as high level. Furthermore, the highest mean is 4.15 on item no. 7 interpreted as a high level. This is on having a connection to the previous lesson learned.

In terms of the lowest mean, it was obtained by item no.1 on the accuracy of the module's content. It had a mean score of 3.82 or high level. This implies that minor typographical errors are overlooked and not corrected. Errors, when not fixed, would make the learners merely the transporters of errors found in a learning material (Chinwendu, 2014). This aligns with Tan (2019)'s result that as to accuracy and up-to-datedness of information, a mean score of 3.32 interpreted as satisfactory, was obtained. This suggested correction in some conceptual, grammatical, and typographical errors in the module.

Table 2
Level of Efficacy of Printed Modules in The Area of Usability

Items	Mean	Interpretation
<i>The module is usable because...</i>		
1. it prepares the learners to think creatively and critically.	4.17	High Level
2. the concepts in the materials are simple and comprehensive.	3.77	High Level
3. the enrichment activities reinforce learning.	3.93	High Level
4. it provides an opportunity for the development of mathematics skills.	3.87	High Level
5. the learning contents provide adequate information on the topics presented.	3.95	High Level
6. it encourages learners to become actively engaged in the learning activities.	4.05	High Level
7. it stimulates the learners to intellectual activities.	3.97	High Level
Overall mean	3.96	High Level

Table 2 presents the level of efficacy of printed modules in the area of usability. All items got a mean score of high level. Thus, resulting in a sub-mean of 3.96 or a high level. This is similar to Akayuure and Apawu (2015), which concluded that most of the modules developed by teachers have considerably instructional value since 58% and 36% of them contained moderate and high pedagogical usability attributes. As can be gleaned from the table, the highest mean of 4.17 is obtained by item no. 1, which states that "the module is useful because it prepares the learners to think creatively and critically".

On the opposite, the lowest mean of 3.77 is obtained by item no. 2, which states that "the module is usable because the concepts in the materials are simple and comprehensive". This connotes that the learners find the materials difficult to understand or navigate. According to Maile and Cooper (2018), when learners find no ease of learning the task presented, useless, and not functional, they have the tendency to quit using the learning materials. The finding of this study supports that of Mirafuentes (2015) that the learning module is not appropriate to the Grade 7 level because the texts are too long and difficult to read.

Table 3
Level of Efficacy of Printed Modules in The Area of Readability

Items	Mean	Interpretation
<i>The module is readable because...</i>		
1. the vocabulary level is adapted to the understanding of Grade 8 learners.	4.14	High Level
2. the length of sentences is suited to the comprehension level of the learners.	3.97	High Level
3. the paragraph structures are easy to understand.	3.73	High Level
4. smooth flow of ideas from lesson to lesson.	3.84	High Level
5. there is a proper transition from old to new lessons.	3.86	High Level
6. the instructions for the activities are clear.	3.91	High Level
7. the activities are appropriate for diverse learners.	3.89	High Level
Overall mean	3.91	High Level

Table 3 discloses the level of efficacy of printed modules in the readability. All items had a high level of efficacy, as evident in the sub-mean of 3.91. item no. 1 on the module being readable because the vocabulary level is adapted to the understanding of Grade 8 learners got the highest mean of 4.14 or high level.

On the contrary, item no. 3 got the lowest mean of 3.73 interpreted as a high level. This is on the module being readable because the paragraph structures are easy to understand. This implies that learners find the modules difficult to understand because of the inappropriate organization of paragraphs. According to Kelly (2017), content which is easier to understand will be easier to navigate. Furthermore, he states that he cannot understand if an average person finds content too difficult to read.

Table 4
Level of Efficacy of Printed Modules in The Area of Accessibility

Items	Mean	Interpretation
<i>The module is accessible because...</i>		
1. it is easy for the learners located even in remote areas to avail of it.	3.80	High Level
2. lessons are localized and contextualized.	3.85	High Level
3. it is child-friendly.	4.04	High Level
4. the different activities are available to achieve the learning outcomes.	3.97	High Level
5. the topics enhances the development of desired values.	3.98	High Level
6. it complies with accessibility standards for culturally diverse and remote communities.	3.94	High Level
7. it is available to all genders, socioeconomic groups, ages, races and cultures.	4.21	High Level
Overall mean	3.97	High Level

Table 4 presents the level of efficacy of printed modules in the area of accessibility. The sub-mean score of 3.97 was obtained; it is interpreted as high as all items obtained a high level of efficacy in terms of accessibility. Item no. 7 got the highest mean of 4.21. It is on the module being accessible because it is available to all genders, socioeconomic groups, ages, races, and cultures.

On the other hand, item no. 1 got the lowest mean of 3.80. It is on the module being accessible because it is easy for the learners located even in the remote areas to avail of it. It can be inferred that delivery of modules to far-flung areas takes time and effort and is oftentimes delayed against schedule. That is why teachers assigned in remote rural areas modified the production and distribution scheme to ensure all learners can avail of the learning

materials. DepEd (2020), in a press release, assured that Self-Learning Materials (SLMs) are delivered in printed format to all schools located in either coastal areas or far-flung provinces

Table 5
Degree of Challenges in Assessment in The Area of Strategy

Items	Mean	Interpretation
1. Assessment activities are not aligned with the objectives.	2.82	Moderate Degree
2. Grading policy for the assessment is not clearly communicated.	2.64	Moderate Degree
3. Learners are not encouraged to do self- Assessment	2.75	Moderate Degree
4. Self-monitoring for learners was not provided.	2.70	Moderate Degree
5. The process of self-monitoring is not specific.	2.85	Moderate Degree
6. Tools required are not applicable to the learners.	2.63	Moderate Degree
7. Activities that are provided showed non- alignment to diverse learners.	2.58	Moderate Degree
Overall mean	2.71	Moderate Degree

Table 5 discloses the degree of challenges in assessment in terms of strategy. All items had a moderate degree of challenges in strategy, resulting in a sub-mean score of 2.71. The item that got the lowest mean of 2.58 is no. 7. This is on activities that are provided showing non-alignment to diverse learners.

The item obtaining the highest mean of 2.85 is no. 5. This is in the process of self-monitoring, not being specific. The giving of self-assessment activities has no clear directions for the learners, and activities have been focused more on self-making without involving students in establishing assessment criteria. A distance learner never or rarely never meets his teacher; hence, he must check answers to the tasks on his own so he would know his learning progress. Rahman (2015) concluded that self-assessment concerns learners valuing their learning and achievements based on evidence from themselves and others. Furthermore, learners focused on the lessons in the modules, which make them responsible for their own learning and performing tasks required in the activities of the modules with little supervision and help (Lindog, 2021).

Table 6
Degree of Challenges in Assessment in The Area of Feedback Mechanism

Items	Mean	Interpretation
1. Criteria given by the teacher were not explained.	2.84	Moderate Degree
2. Feedbacks from learners' progress report were not given.	2.64	Moderate Degree
3. Feedback results about learners' progress were not provided.	2.65	Moderate Degree
4. The giving of feedback is not updated.	2.78	Moderate Degree
5. Students/parents are not consulted on the tasks are given.	2.52	Moderate Degree
6. Learners are not provided with a record of progress.	2.52	Moderate Degree
7. Outputs returned are not provided with comments.	2.72	Moderate Degree
Overall mean	2.67	Moderate Degree

Table 6 reveals the degree of challenges in assessment in the areas of feedback mechanism. A sub-mean of 2.67 was obtained by all items interpreted as a moderate degree. The lowest mean of 2.52 is obtained by both items nos. 5 and 6. Item no. 5 states that students/parents are not consulted on the tasks given, and item 6 states that learners are not provided with a program record.

On the other hand, the highest mean of 2.84 was on item no. 1, disclosing that criteria given by the teachers were not explained. It could be inferred that a holistic rubric was provided for rating performance tasks where each numerical score is not given a specific interpretation. This result is affirmed by Rahman (2015) in his concluding remarks that transparent and valid assessment criteria are proven to be highly acceptable among distance learners. Furthermore, the rubric should separate the activity or work into its component parts or attributes and describe the characteristics of each part or attribute along a scale of mastery level (Maile and Cooper, 2018).

Table 7
Degree of Challenges in Assessment in The Area of Performance Task

Items	Mean	Interpretation
1. There is a non-clarity of task instructions.	2.74	Moderate Degree
2. Rubrics are not aligned to the given tasks.	2.30	Low Degree
3. Directions are not simplified for better understanding.	2.62	Moderate Degree
4. Tasks resources are not available at home.	2.50	Moderate Degree
5. The allotted time is not enough to accomplish outputs.	2.77	Moderate Degree
6. Rubrics are not aligned to the MELCs.	2.24	Low Degree
7. The module has multiple tasks to accomplish.	3.46	Moderate Degree

Overall mean **2.66** **Moderate Degree**

Table 7 shows the degree of challenges in assessment in terms of a performance task. As shown in the table, a sub-mean score of 2.66 or moderate degree describes the respondents' degree of challenges in performance task assessment. The item which states "Rubrics are not aligned with the MELCs" got the lowest mean of 2.24 or low degree.

On the contrary, the item that the module has multiple tasks to accomplish got the highest mean of 3.46 or moderate degree. This clearly suggests that because of so many tasks presented by the module for the learners to perform, they cannot anymore achieve satisfactory outputs as less focus can be given to each task. This confirms the report of Estrada (2021) that tasks to perform in the modules are too many that learners fall short of time accomplishing them. Learners feel they work hard to meet the demands of modular learning, hence causing them much discomfort and depression.

Table 8
Relationship Between the Level of Efficacy of Printed Modules and the Level of Academic Performance of Learners in Math

Correlates	N	r	p-value	Level of Sig	Interpretation
Level of Efficacy of Printed Modules	237	0.036	0.584	0.05	Not Significant
Level of Academic Performance of Learners in Math					

Table 8 reveals the relationship between the level of efficacy of printed modules and the level of academic performance of learners in Math. As depicted in the table, the Spearman rho value is 0.036 with a p-value of 0.584, which is not significant. Therefore, no significant relationship existed between the level of efficacy of printed modules and the level of academic performance of learners in Math.

This implies that the level of efficacy of printed modules does not influence the level of academic performance of learners in Math. No matter how high or low is the level of efficacy on the printed modules, the learners' grades in Math are not affected by it. This conforms to Weng et al. (2015) that the result of Spearman correlation (though not negative) was not significant at $p < .05$, concluding that the readability of modules is not related to student performance. Similarly, this agrees with Cramer et al.'s (2018) study, which shared a significant association between module receipt and utilization and improved performance in the final examination.

However, the result does not support the conclusion of Columbano (2020) that the teaching of basic Mathematics using modular approach is an effective approach in enhancing the learning of mathematics and to that of Lucero (2020) that showed a significant relationship between the level of implementation of the Alternative Delivery Model (ADM) program and the level of academic performance of the students.

Table 9
Relationship Between the Degree of Challenges in Assessment and the Level of Academic Performance of Learners in Math

Correlates	N	r	p-value	Level of Sig	Interpretation
Degree of Challenges in Assessment	237	-0.012	0.856	0.05	Not Significant
Level of Academic Performance of Math 8 Learners					

Table 9 presents the relationship between the degree of challenges in assessment and the level of academic performance of learners in Math. Using Spearman rho correlation resulted in a negative value of -0.012 and not significant and p-value of 0.856. therefore, there is no significant relationship between the degree of challenges in assessment and the level of academic performance of learners in Math.

The result is that learners' academic performance in Math is not associated with the degree of challenges they encountered in assessment. Difficulties and other related issues in assessment in modular learning have no impact on Math performance of Grade 8 learners. This does not support the study of Umar (2018), concluding that the impact of assessment is quite positive on the student's academic achievement. On the other hand, this result

supports Alkhateeb (2018) that exposing students to varied assessment methods does not contribute to the increase and/or decrease of their academic performance.

Conclusions:

In conclusions, the following were drawn from the findings:

The level of efficacy of printed modules was high in the areas of integrity, usability, readability, and accessibility. This implies that the Grade 8 learners have high regard for the potential of the printed modules to produce a result or achieve success in modular learning.

The degree of challenges in assessment was moderate in strategy, feedback mechanism, and performance tasks. Therefore, the Grade 8 learners do not take problems on how assessments are conducted as seriously as other concerns regarding module-related tasks.

The level of efficacy of printed modules has no significant relationship with the level of learners' academic performance in Math 8. The level of efficacy does not influence the learners' academic performance in terms of integrity, usability readability, and accessibility of printed modules.

The degree of challenges in assessment has no significant relationship with the level of learners' academic performance in Math 8. No matter how challenged or not the learners in assessment are, it does not affect their academic performance in Math.

Recommendations

The following recommendations were formulated based on the conclusions of this study:

The level of efficacy of printed modules was high in the areas of integrity, usability, readability, and accessibility. Though of high level, it is still recommended that the LRMDs create a committee of language experts to check grammatical, conceptual and topographical errors in the module before they will be subjected for uploading and made accessible by teachers for reproduction and distribution.

The degree of challenges in assessment was moderate in strategy, feedback mechanism and performance tasks. It is recommended that subject teachers supplement the modules with teacher-made assessments in various forms of test questions, so do with self-monitoring checklists for learners to help track their learning progress and significant gains.

A significant relationship did not exist between the level of efficacy of printed modules and the level of academic performance of learners in Math. Hence, it is recommended that the Chief of the Curriculum Implementation Division (CID) consult with district supervisors about what technical supports the learners need in the field and the concerns about printed modules. Results of consultation will be made the basis for crafting programs for learners' development.

A significant relationship did not exist between the degree of challenges in assessment and the level of academic performance in Math. It is recommended that the Chief of School Governance and Operation Division (SGOD) should craft training for upskilling teachers about assessment in the new normal.

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