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Page: 01-17

DIFFERENTIATED INSTRUCTION TO ADDRESS LEARNING LOSS AND LEARNER'S PROGRESS THROUGH CURRICULUM MANAGEMENT SUPPORT SYSTEM (CMSS) RESULTS

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ABSTRACT

This study was conducted to find the relationship between Differentiated Instruction to address learning loss and learner's progress through Curriculum Management Support System (CMSS) results in Malaybalay City District 5 elementary schools of Malaybalay City Division, School Year 2023-2024. The respondents of the study were all teachers of District 5. Complete Enumeration was used as a sampling procedure. The instrument of the study was crafted by the researcher. Frequency count and percentage, Mean and Standard Deviation, and Pearson r Product-Moment Correlation Coefficient or Pearson r were the statistical tools utilized.

The following findings were revealed: The majority of the respondents belong to the age bracket of 31-40. Female teachers were the overwhelming majority, with Teacher 1 as the majority teaching position. Most of the respondents fall within 1-3 training courses attended and received technical assistance. There was a very large extent of implementation of Differentiated Instruction to address learning loss in terms of content, process, projects, and learning environment. Majority of learners achieved average grades between 80 and 84 or Satisfactory Level. Among the variables analyzed, age, present teaching position, and technical assistance on how to conduct Differentiated Instruction demonstrate significant relationships with learners' progress through CMSS results. Age and present teaching position exhibit negative correlations, indicating that as age and higher teaching positions increase, learners' progress tends to decrease. Therefore, we reject the null hypothesis which states that there is no significant relationship between the extent of implementation of

Differentiated Instruction to address learning loss and the learner's progress through CMSS results.

The following recommendations are: Teachers may recognize and respect the varied backgrounds and experiences of their learners. School administrators may endorse and promote Differentiated Instruction. Learners may uphold a growth attitude. Adopt a mentality of gaining knowledge from errors, seeking input, and establishing objectives. The Department of Education may provide sufficient technical and technological resources and support to ensure that educators are provided with access to educational technology resources and training to effectively implement Differentiated Instruction.

KEYWORDS: Differentiated Instruction, Learning Loss, Learner's Progress, Curriculum Management Support System (CMSS) Results.

INTRODUCTION

The shutdown of schools has emerged as a significant global challenge for the medium- and long-term recovery from the COVID-19 pandemic, as it has resulted in substantial learning deficits. In Airport Village Elementary School, District V, Malaybalay City Division, where the researcher is stationed, a noticeable low turnout of reading assessment result had emerged wherein among the 554 learners from Grade IV-Grade VI, 83 are non-readers, 288 are frustration readers, 133 are instructional readers, and 50 are independent readers.

According to a recent report released today by the Global Education Evidence Advisory Panel (GEEAP), which is jointly hosted by the Foreign, Commonwealth & Development Office of the United Kingdom, the UNICEF Office of Research-Innocenti, and the World Bank, the closure of schools has resulted in significant and enduring negative consequences for children's academic progress and overall well-being. The repercussions of these closures are expected to have long-lasting effects that will be felt for many years to come.

Estimations indicate that in the absence of prompt intervention, a primary school student in the third grade, who has experienced a one-year educational setback due to the pandemic, may potentially encounter a cumulative loss of academic progress equivalent to three years of learning over an extended period of time. According to Kwame Akyeampong, co-chair of the Panel, the adverse effects on children's education caused by the easing of lockdown measures are expected to have long-lasting consequences on their overall well-being, including mental health, and productivity. Consequently, education disruption emerges as a significant obstacle

to the medium- and long-term recovery from the COVID-19 pandemic, unless prompt action is taken by governments.

According to the report, low- and middle-income countries, as well as children from poorer socioeconomic situations, have experienced the most severe impacts. In high-income nations, schools have experienced comparatively longer durations of closure, resulting in limited or absent access to technological resources for pupils. Furthermore, there has been a somewhat lower level of responsiveness and adaptability to the various problems posed by the ongoing crisis.

A lot of reading programs had been launched to end this dilemma; but the researcher is more interested to look into the possible relief that the differentiated instruction (DI) can offer. Differentiated instruction is an instructional methodology that customizes the delivery of educational content to accommodate the diverse learning demands of pupils. This educational tool facilitates the demonstration of students' knowledge through several modalities.

Differentiated instruction is an instructional methodology that customizes the delivery of educational content to accommodate the diverse learning demands of all pupils. All students have a common objective in their pursuit of learning. However, the education is subject to variation depending on the individual students' interests, preferences, strengths, and areas of difficulty.

Instead of employing a singular didactic approach, a teacher employs a diverse array of instructional methods to cater to the needs and preferences of the entire group. This might encompass the pedagogical approach of instructing pupils either in small cohorts or through individualized sessions. According to Carol Ann Tomlinson, an esteemed educator known for her groundbreaking contributions in this field, students possess a diverse range of opportunities to acquire knowledge, comprehend concepts, and articulate their learning.

Thus, the researcher conducted this study in order to find the relationship between the differentiated instruction to address learning loss and learner's progress through CMSS results in Malaybalay City District 5, Malaybalay City Division, School Year (SY) 2023-2024.

Framework of the Study

This study was anchored on the concept of Differentiated Instruction by Carol Ann Tomlinson, a renowned author and educator recognized for her contributions to differentiated instruction. According to her, this approach can be defined as a pedagogical mindset that emphasizes the need of tailoring instruction to meet the individual needs of students. Tomlinson says that effective teaching involves a keen focus on the unique characteristics

and abilities of each student. The author places significant emphasis on four fundamental pillars of differentiated instruction, namely Content, Process, Product, and Learning Environment.

Proponents argue that through the implementation of differentiated instruction, which aligns subject matter and learning objectives with the unique strengths, interests, and learning styles of individual students, it is possible to cultivate higher levels of student engagement and motivation. Consequently, this approach can lead to enhanced learning outcomes by encouraging students to assume greater ownership of their own learning process.

Educators possess a profound understanding that pupils exhibit distinct talents, obstacles, inclinations, capabilities, and preferences in terms of their learning styles. Differentiated instruction refers to the pedagogical approach that involves the identification and comprehension of individual students' preferred learning styles, followed by the customization of instructional methods to cater to their unique needs.

The advocacy organisation, Reading Rockets, which has been recognised with the Library of Congress Literacy Award, acknowledges the significant impact of Tomlinson's work in delineating the fundamental principles of differentiated instruction. These principles serve as a framework for classroom teachers to effectively address three distinct facets of the educational process. Additionally, a fourth aspect is incorporated that encompasses and builds upon these three elements.

The content refers to the body of knowledge, concepts, and skills that students are required to acquire as outlined in the curriculum. The process refers to the series of activities in which the learner actively participates in order to comprehend and interpret the content. Products refer to the various means by which students showcase their acquired knowledge, comprehension, and skills.

The learning environment constitutes the fourth component within the framework of differentiated teaching. The term "classroom climate" encompasses the environmental conditions and the overall ambience of a classroom, including both its physical attributes and the instructional approach employed by the instructor to foster a collaborative and conducive learning environment.

The learning profile of students can be influenced by various factors, such as their cultural background, the learning environment they are exposed to (whether they prefer working individually or in groups, sitting still or engaging in physical movement, studying in a quiet setting or with background music), and their inherent learning style(s) (such as visual, auditory, or kinesthetic preferences). Figure 1 presents the schematic diagram of the study.

Schematic Diagram

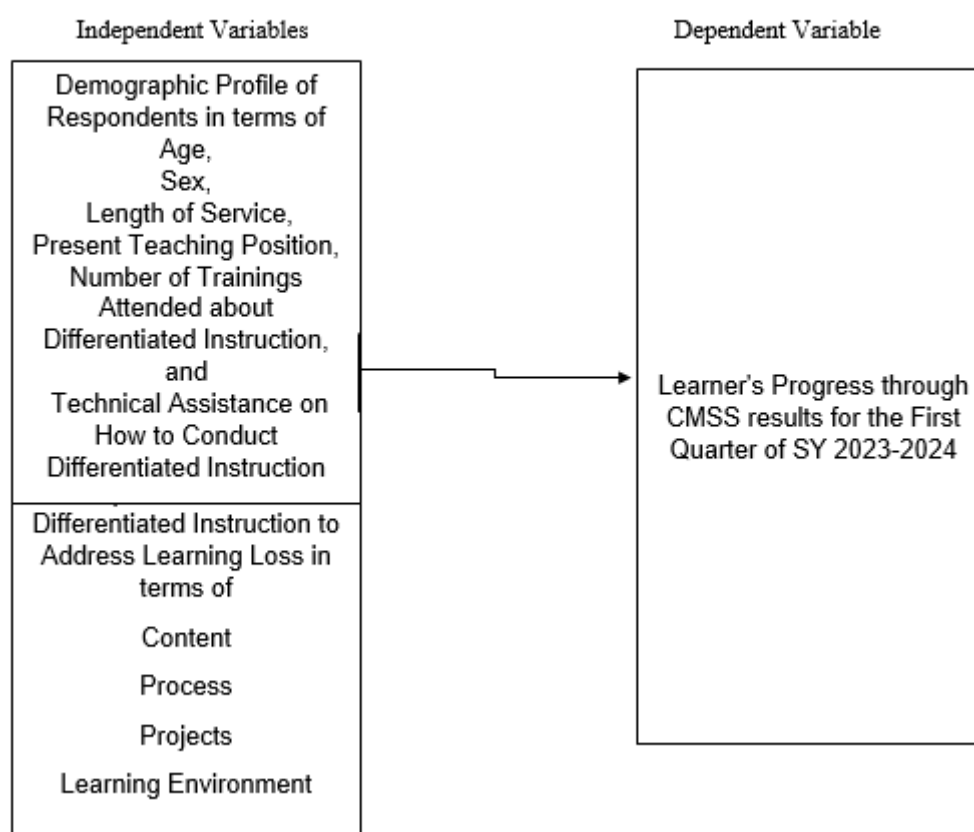


Figure 1. Schematic Diagram showing the Relationship of the Independent and Dependent Variables of the Study.

Statement of the Problem

This study was conducted to find the relationship between the differentiated instruction to address learning loss and learner's progress through CMSS results in Malaybalay City District 5, Malaybalay City Division, School Year (SY) 2023-2024.

Specifically, this study endeavored to answer the following questions:

1. What is the demographic profile of respondents in terms of age, sex, length of service, present teaching position, number of trainings attended about differentiated instruction, technical assistance on how to conduct Differentiated Instruction?
2. What is the extent of implementation of Differentiated Instruction to address learning loss in terms of content, process, projects, and learning environment?
3. What is the learner's progress through CMSS results for the first quarter of SY 2023-2024?
4. Is there a significant relationship between the extent of implementation of differentiated instruction to address learning loss and the learner's progress through CMSS results?

Delimitations of the Study

This research was delimited to finding the relationship between the differentiated instruction to address learning loss and learner's progress through CMSS results in Malaybalay City District 5, Malaybalay City Division, School Year (SY) 2023-2024.

The independent variables were delimited to the demographic profile of respondents in terms of age, sex, length of service, present teaching position, number of trainings attended about differentiated instruction, technical assistance on how to conduct differentiated instruction and the extent of implementation of differentiated instruction to address learning loss.

The dependent variable was delimited to the learner's progress through CMSS results for the first quarter of SY 2023-2024.

This study used a researcher-made survey-questionnaire. The respondents of this study were delimited to the public-school teachers in the elementary schools of Malaybalay City District 5, Malaybalay City Division specifically: Airport Village Elementary School, Casisang Central Integrated School, Natid-asan Elementary School, San Jose Elementary School, Mabuhay Integrated School, and Panamucan Elementary School.

The data were treated with the descriptive statistics such as frequency count, percentage, mean, standard deviation, and Pearson r Product Moment Correlation Coefficient.

Significance of the Study

This study was undertaken based on the researcher's belief that it would yield valuable insights and benefits to the identified set of beneficiaries.

To the learners, they would derive benefits from this research, as their needs will be duly taken into consideration by the teachers. The learning development of the individual would also be monitored.

To the teachers, this study might provide educators with valuable insights on the relevance of using individualized teaching as a means to effectively address the issue of learning loss. Educators would demonstrate more awareness and consideration towards the diverse learning styles and individual learning requirements of their students within the context of the curriculum.

To the school heads, this study might provide school heads with ideas and recommendations for addressing the learning loss resulting from the lockdown during the pandemic era. Consequently, they could integrate these findings into their provision of technical help to the teachers under their purview.

To the schools, this study might facilitate a transformation of schools towards a learner-centered approach, with a primary focus on meeting the educational requirements of school students.

To the future researchers, this study has the potential to offer them with valuable results and conclusions that might be utilized in their further studies pertaining to differentiated education.

THE METHODOLOGY

Research Design

This study followed the descriptive-correlation design. It investigated the relationship between the differentiated instruction to address learning loss and learner's progress through CMSS results in Malaybalay City District 5, Malaybalay City Division, School Year (SY) 2023-2024.

Data on the demographic profile of respondents in terms of age, sex, length of service, present teaching position, number of trainings attended about differentiated instruction, technical assistance on how to conduct differentiated instruction and the extent of implementation of differentiated instruction to address learning loss were obtained through the researcher-made questionnaire and learner's progress through CMSS results for the first quarter of SY 2023-2024 is based on school's ICT report.

Research Locale

This study was conducted in the elementary schools of Malaybalay City District 5, Malaybalay City Division, school year 2023-2024.

The Division of Malaybalay City has been fortunate in various aspects this year. The completion of the new division office building at Casisang, Malaybalay City, is a significant achievement. Its officials, personnel, and staff successfully relocated to the new facility on December 1st. The location we have chosen to offer our consumers is exceptionally advantageous.

The acquisition of this facility was made possible through the strategic collaboration and coordinated endeavours of various entities across multiple sectors within our harmonious society. Schools Division Superintendents Edilberto L. Oplenaria and Dr. Florante M. Corpuz utilised their professional networks to expedite the disbursement of funding. City Mayor Ignacio W. Zubiri, in collaboration with municipal authorities and staff, played a pivotal role in expediting the issuance of city permits for the construction of this structure.

The individuals affiliated with BUSECO, Water District, City Engineering Office, School Districts, DAPSSHI, and other relevant parties.

The Division of Malaybalay City was established through the division of the existing Division of Bukidnon, in accordance with DepEd Order No. 50, s. 2002 (Establishment of Interim City Schools Division). The primary goal of this division is to achieve effective oversight of schools, thereby improving instructional supervision and ultimately enhancing the academic performance of students.

The municipality of Malaybalay was designated as a component city of Bukidnon on March 22, 1998, as a result of the enactment of RA 8490, which was written by the late Congressman Reginaldo N. Tilanduca. Consequently, the aspiration to form an independent schools division materialized due to its fulfilment of the Department of Education (DepEd) and Department of Budget and Management's (DBM) stipulated criterion of having a minimum of 750 teachers, which is necessary for the establishment of a city division.

In the year 2004, an initial endeavor to establish an independent city schools division was formulated by a resolution enacted by the esteemed late Honorable Councilor Liberato P. Tortola, Sr., who served as the Chairman of the Education Committee during that period. Nevertheless, the concept was discarded due to a lack of a designated individual inside the parent organization who could effectively oversee the implementation of the proposed strategies and manage the associated logistical aspects.

In the year 2008, a comprehensive evaluation of plans was conducted. Therefore, prior to the conclusion of the term of Honorable City Mayor Florencio T. Flores Jr., the collective endeavors of all individuals involved in the strategic development of a municipal division were successfully realized. The city government, under the leadership of Mayor Flores, entered into a Memorandum of Agreement with DepEd Regional Director Dr. Estrella Abid-Babano, CESO III, as a result of Sangguniang Panlungsod Resolution No. 2008-9923, which was sponsored by City Councillor Hon. Fernando O. Melendez.

On September 1, 2009, representatives from the Department of Education (DepEd) and local government officials from Malaybalay City were present to see the formal induction ceremony of the City Division Officials at the Kaamulan Open.

The Division of Malaybalay City is composed of ten (10) Districts. This study will be particularly conducted in Malaybalay City District 5 at Airport Village Elementary School, Casisang Central Integrated School, Natid-asan Elementary School, San Jose Elementary School, Mabuhay Integrated School, and Panamucan Elementary School. Figure 2 shows the map of the locale of the study.

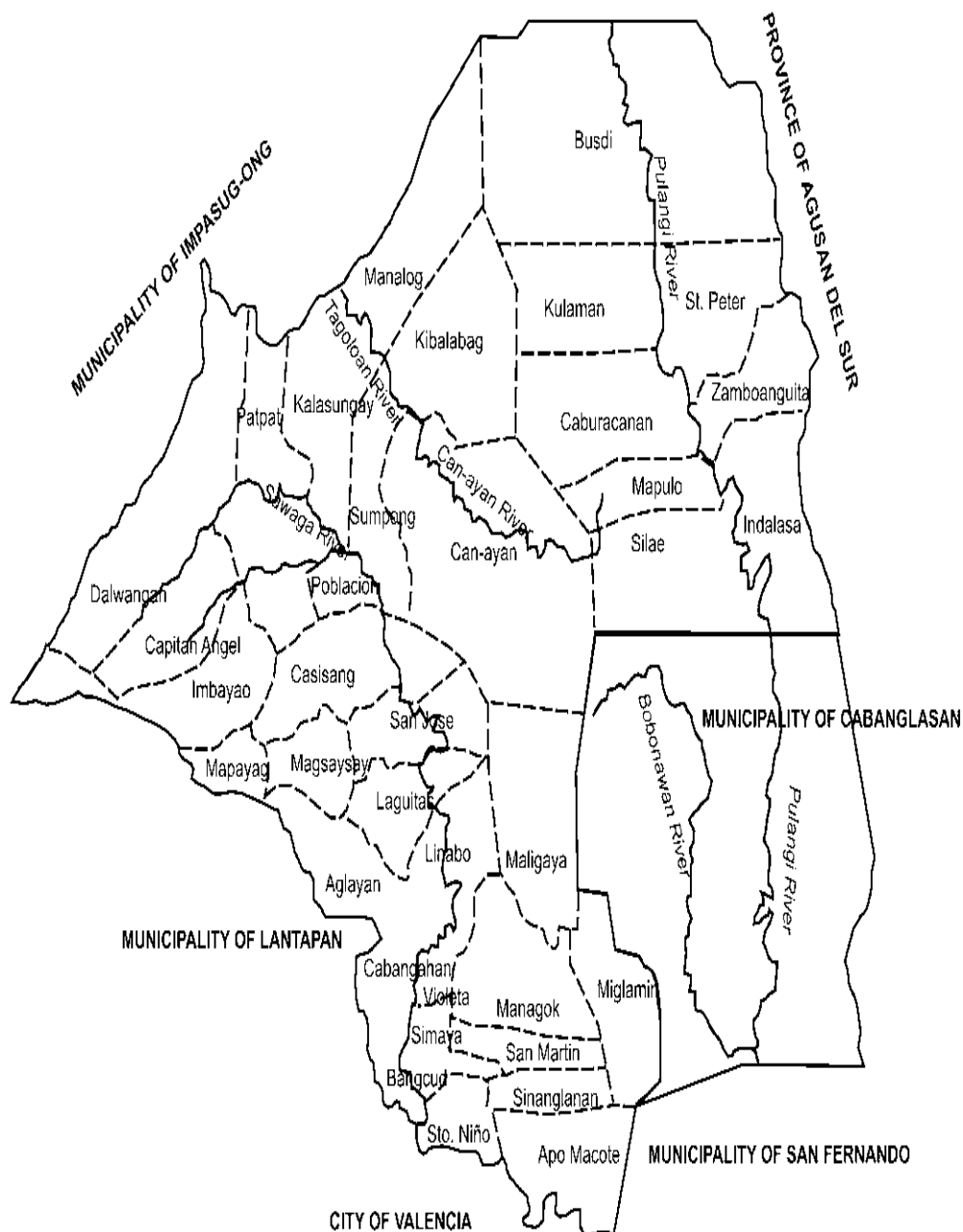


Figure 2. Administrative Map showing the Locale of the Study.

Respondents of the Study

The Respondents of the Study

The respondents of the study were all the public-school teachers in Malaybalay City District 5, Malaybalay City Division, SY 2023-2024. The entire district reported learning loss as brought about by COVID-19 Pandemic; thus, all teachers in the said district were sought for

their responses as far as their implementation of differentiated instruction to address learning loss was concerned.

Table 1 presents the distribution of respondents by school.

Table 1: *Distribution of Respondents by School.*

School	Number of Respondents
Airport Village Elementary School	32
Casisang Central Integrated School	33
Natid-asan Elementary School	14
San Jose Elementary School	27
Mabuhay Integrated School	15
Panamucan Elementary School	5
Total	126

Sampling Procedures

Complete Enumeration was used as a sampling procedure of this study. All the public-school teachers in District 5, Division of Malaybalay City were requested to participate as respondents.

The Research Instruments

The researcher was the one who personally crafted the instrument of this study. It was a survey-questionnaire which was composed of two parts.

Part I was about the demographic profile of the respondents in terms of age, sex, length of service, present teaching position, number of trainings attended about differentiated instruction, technical assistance on how to conduct differentiated instruction.

Part II dealt with the extent of implementation of differentiated instruction to address learning loss. Each of the areas has five items. Columns for the choices are based on the five-point Likert scale. The respondent checked the column for his chosen answer.

Part III elicited about the learner's progress through CMSS results for the first quarter of SY 2023-2024.

Data Gathering Procedure

This research followed the proper protocol as a standard operational procedure in conducting a study at Valencia Colleges (Bukidnon) Incorporated. Firstly, the approval and endorsement letter of the Dean of Graduate Studies was solicited. Then, it was submitted to the Schools Division Superintendent of the Division of Malaybalay City. When due approval was assured, the researcher approached the Public Schools District Supervisors of District 5 for his permission. Next the School Principal/School Head of the chosen schools were sought for

approval for the researcher to be allowed to conduct a study on their respective schools. Finally, the launching of the questionnaires to the chosen respondents took place.

Scoring Procedure

The data were processed and interpreted using the rating scales below. For the extent of implementation of differentiated instruction to address learning loss, the mean was interpreted using the Five-Point Likert Scale.

A. On the Extent of the implementation of Differentiated Instruction to Address Learning Loss

Scale	Range	Indicator	Description
5	4.20-5.00	Very Large Extent	Implementation is done 9-10 times out of ten situations
4	3.40-4.19	Large Extent	Implementation is done 7-8 times out of ten situations
3	2.60-3.39	Moderate Extent	Implementation is done 5-6 times out of ten situations
2	1.80-2.59	Small Extent	Implementation is done 3-4 times out of ten situations
1	1.00-1.79	Very Small Extent	Implementation is done 0-2 times out of ten

B. On the CMSS Results for the First Quarter of SY 2023-2024

Final Rating	Qualitative Description
90 and Above	Outstanding Performance
85-89	Very Satisfactory
80-84	Satisfactory
75-79	Fairly Satisfactory
74 and below	Did Not Meet Expectations

Statistical Treatment of Data

The following statistical tools were used in this study:

Frequency count and percentage were used to describe the demographic profile of the respondents in terms of age, sex, length of service, present teaching position, number of trainings attended about differentiated instruction, technical assistance on how to conduct differentiated instruction.

Mean and standard deviation were applied to determine the extent of implementation of differentiated instruction to address learning loss.

Frequency count and percentage were applied to determine the learner's progress through CMSS results for the first quarter of SY 2023-2024.

Pearson r Product-Moment Correlation Coefficient or Pearson r was utilized to find the significant relationship between the extent of implementation of differentiated instruction to address learning loss and the learner's progress through CMSS results.

FINDINGS

The following findings were revealed in this study:

The majority of the respondents belong to the age bracket of 31-40. This suggests a significant presence of individuals in their prime working years, likely with established careers or responsibilities. Females make up the overwhelming majority. The majority of respondents hold positions as teachers, with Teacher 1 as majority teaching position. The largest proportion of respondents fall within the 6-10 years category indicating a substantial presence of educators in the early to mid-stages of their careers. These individuals have probably acquired experience and skill since their first admission into the profession and may be advancing in their roles. The majority of respondents fall within the 1-3 training courses attended category indicating a widespread participation in a moderate number of training sessions on Differentiated Instruction. The majority of respondents have received such technical assistance, suggesting a widespread effort to provide educators with guidance and resources to implement Differentiated Instruction effectively.

The extent of implementation of Differentiated Instruction to address learning loss are as follows: in terms of content (Large Extent), process (Very Large Extent), projects (Large Extent), and learning environment (Very Large Extent).

The majority of learners achieved average grades between 80 and 84 or Satisfactory Level. Among the variables analyzed, age, present teaching position, and technical assistance on how to conduct Differentiated Instruction demonstrate significant relationships with learners' progress through Curriculum Management Support System (CMSS) results. Specifically, age and present teaching position exhibit negative correlations, indicating that as age and higher teaching positions increase, learners' progress through CMSS results tends to decrease. Therefore, we reject the null hypothesis which states that There is no significant relationship between the extent of implementation of Differentiated Instruction to address learning loss and the learner's progress through CMSS results.

CONCLUSION

The following conclusions were drawn from the findings revealed:

The research findings indicate that the study focused on adults in their peak working years, specifically between the ages of 31 and 40, who are likely to have well-established careers or responsibilities. The vast majority of respondents were females, and the majority occupied the role of instructors, specifically Teacher 1. The statistics also indicated a notable presence of educators throughout the initial to intermediate phases of their professional lives, with the majority falling between the 6-10 years range. It is probable that these individuals have acquired experience and skills since they started their careers and may be progressing in their positions. Moreover, a significant proportion of participants had taken part in 1-3 training programs focused on Differentiated Instruction, suggesting a general involvement in a moderate number of training sessions.

The research findings indicate a significant adoption of differentiated education to overcome learning loss across various dimensions. The study suggests that instructors have prioritized customizing the instructional content to accommodate the varied requirements of students. In addition, they have integrated distinct procedures, encompassing a range of instructional approaches and tactics to cater to diverse learning preferences and aptitudes. The implementation of initiatives that facilitate hands-on and experience learning has been extensively carried out, enabling students to participate in meaningful and personalized activities. Moreover, there has been a significant emphasis on establishing inclusive and supportive learning settings, which greatly contribute to creating a favorable atmosphere for implementing effective Differentiated Instruction. These findings emphasize the dedication of educators to tackle learning deficits by conducting comprehensive differentiated teaching, which covers multiple areas of content, process, projects, and learning environment.

Based on the research findings, it can be inferred that most learners obtained grades within the range of 80 to 84, which may be considered as average or satisfactory. The data suggests that a substantial majority of students achieved results within this range, indicating a consistent level of performance among the group. Although the grading method or criteria may differ, this range generally signifies a satisfactory level of performance where pupils fulfill the expected requirements and exhibit a strong comprehension of the subject content. These data suggest that a significant proportion of learners have achieved a satisfactory level of academic achievement, indicated a fundamental level of competence and understanding within the context being studied.

The research findings indicate that there are notable correlations between specific variables and students' advancement in Curriculum Management Support System (CMSS) outcomes when applying tailored instruction to address learning setbacks. An analysis was conducted on the factors of age, present teaching position, and technical assistance in conducting Differentiated Instruction. The purpose was to assess their links with learners' progress. The data showed that there were negative correlations between age and present teaching position, suggesting that as teachers' age and teaching positions advanced, the learners' advancement through CMSS outcomes tended to diminish. These findings indicate that older teachers and individuals in more advanced teaching roles may have difficulties or have distinct requirements in efficiently implementing Differentiated Instruction. These data support the rejection of the null hypothesis, which posits that there is no significant correlation between the degree of implementing Differentiated Instruction and learners' progress as indicated by Curriculum Management Support System (CMSS) scores.

Recommendations

The following recommendations are hereby offered:

The teachers may acknowledge the variety of her students. Given the substantial number of individuals in the prime of their careers and a primarily female population, it is imperative for teachers to recognize and respect the varied backgrounds and experiences of their students. Take into account the diverse viewpoints, requirements, and obligations of individuals when designing and executing teaching strategies.

The school administrators have the ability to endorse and promote Differentiated Instruction. They may acknowledge the importance of differentiated education in addressing the decline in learning and offer assistance in its implementation. Assign resources to professional development programs and workshops to provide teachers with the essential abilities and tactics for successful differentiation.

The learners may possess and uphold a growth attitude. Adopt a mentality that prioritizes gaining knowledge from errors, actively seeking input, and establishing fresh objectives. Utilize supplementary resources, such as tutoring or study groups, to enhance their comprehension and target any areas of deficiency.

Given the study's findings on the relationship between technical assistance and students' achievement of Curriculum Management Support System (CMSS) objectives, it is imperative for the Department of Education to ensure the provision of sufficient technical and technological resources and support. Ensure that educators are provided with access to

pertinent educational technology resources and training to optimize their capacity in effectively implementing Differentiated Instruction. Facilitate the incorporation of technology into teaching methods, such as utilizing adaptive learning platforms or digital resources that can accommodate the specific needs of each student.

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