



Project R.A.D.I.O. Modular Distance Learning in Mathematics: The Case of Linanot Elementary School

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Abstract. In today's learning paradigm, hinterland schools transitioned from face-to-face instruction to modular distance learning (MDL) modality. Upon the implementation of MDL in Linanot Elementary School, one of the most prevalent concerns that arise is the learners' low-level performance in Mathematics, specifically their conceptual understanding and problem-solving skills. This article sought the contribution of two-way radio instruction in the performance of Grade Two learners in school year 2020-2021, employing descriptive design with quantitative and qualitative support. Results revealed that learners' performance in Mathematics increased and improved after the conduct of two-way radio instruction, explicitly describing their experiences as 'more guided' and 'interactive' even without meeting face-to-face. However, some of the learners likewise encountered challenges in the technical aspects due to their first-time experience in using the radio. Based on the findings, Project R.A.D.I.O (Radio Assisted Delivery on Improving Instructional Outcomes) is formulated, embedding two-way radio instruction in the instructional design.

Keywords: two-way radio; Mathematics; problem-solving; contextual; instructional intervention

1. Introduction

One of the lingering challenges in our Philippines' educational system is the quality of education, particularly in the learning outcomes of students. Coinciding with the results of previous large-scale assessments, the Department of Education has its rallying call for a national effort through its *Sulong Edukalidad* framework to address issues and gaps in attaining quality of basic education in the Philippines.

With the outbreak of coronavirus, the battle for quality basic education is even more challenging. The concomitant challenges brought by COVID-19 pandemic amplify the struggles of the education sector as it causes changes in the country's education landscape. In response to this, DepEd developed a Basic Education Learning Continuity Plan (BE-LCP) to ensure that learning continues amidst the global health crisis (DO no. 12, s. 2020).

Today's learning paradigm involves transitioning to different distance learning delivery modalities (DepEd Memorandum DM-CI-2020-00162, s.2020). It remains crucial for teachers especially those who are implementing modular distance learning (MDL) modality to see what and how learners are learning. This circumstance is observed in Linanot Elementary School. Teachers face a plethora of challenges in adapting to new ways of how learners learn and in gauging the learners' understanding of the lessons. In the same manner, parents express their difficulties as they replicate the teachers in facilitating the learning process at home. With this, learning delivery should be reviewed and reimaged to accommodate the context of the school community.

In the school's implementation of module-based learning, one of the most prevalent concerns that arise is the learners' low level of performance in Mathematics. Both conceptual understanding and problem-solving skills are identified as the least mastered skills in all grade levels. These are reflected as the common learner's needs in the Individual Learning Monitoring Plan (ILMP). Teachers are faced with difficulties of ensuring learners acquire an understanding of the mathematical concepts and problem-solving skills in the absence of face-to-face instruction. Meanwhile, parents are confronted with the challenges of assisting their children in answering the self-learning modules in Mathematics as the learners cannot grasp the mathematical concepts easily and cannot do the learning tasks independently. As communicated in the parents' journal, this subject consumes much of their time that they cannot do other chores. Having these observations, instructional intervention should be taken into account. This is where two-way radio instruction comes into play. Specifically, this mode of teaching in the field of modular distance learning was employed towards the improvement of the learners' performance in Mathematics.

During the current pandemic, radio is being considered as one of the options in mitigating the education emergency (McBurnie, 2020). Governments in low-income nations and with low-connectivity rates have considered interactive radio instruction (IRI) to ensure that learning can continue. McBurnie (2020) further stated that IRI has the potential to enable the most isolated learners to engage in education. Curriculum specialists have looked into developing or repurposing audio-material to align with the standards (Richmond, 2020), that would enable learners to work toward planned learning outcomes.

Meanwhile, certain studies further throw light on the positive contribution of using radio technology in education. A detailed review of research studies on the use of radio interventions by Olakulehin (2016) showed that radio can teach; it can present new concepts and information. In this regard, radio technology has been identified as a way to supplement the regular teaching-learning process in schools. It can be an easier option to bridge the gap where qualified teachers are not available or where teachers express difficulty in imparting certain parts of the curriculum.

Although several studies have been conducted that support the use of radio as an educational medium, most of these studies focused on one-way radio programs. There is a need for further research on two-way radio instruction. In the 'new normal' setup, learners primarily rely on learning modules in grasping the curricular standards with the help of household partners and community facilitators. It has appeared relevant and interesting to conduct a study that will determine the impact of two-way radio instruction within the framework of modular distance learning.

This study aimed to investigate the improvement on learners' performance in Mathematics upon participating in two-way radio instruction. Specifically, it sought to examine the levels of performance of learners before and after two-way radio instruction, their perceptions towards the intervention, and to design school-based innovation for instructional improvement.

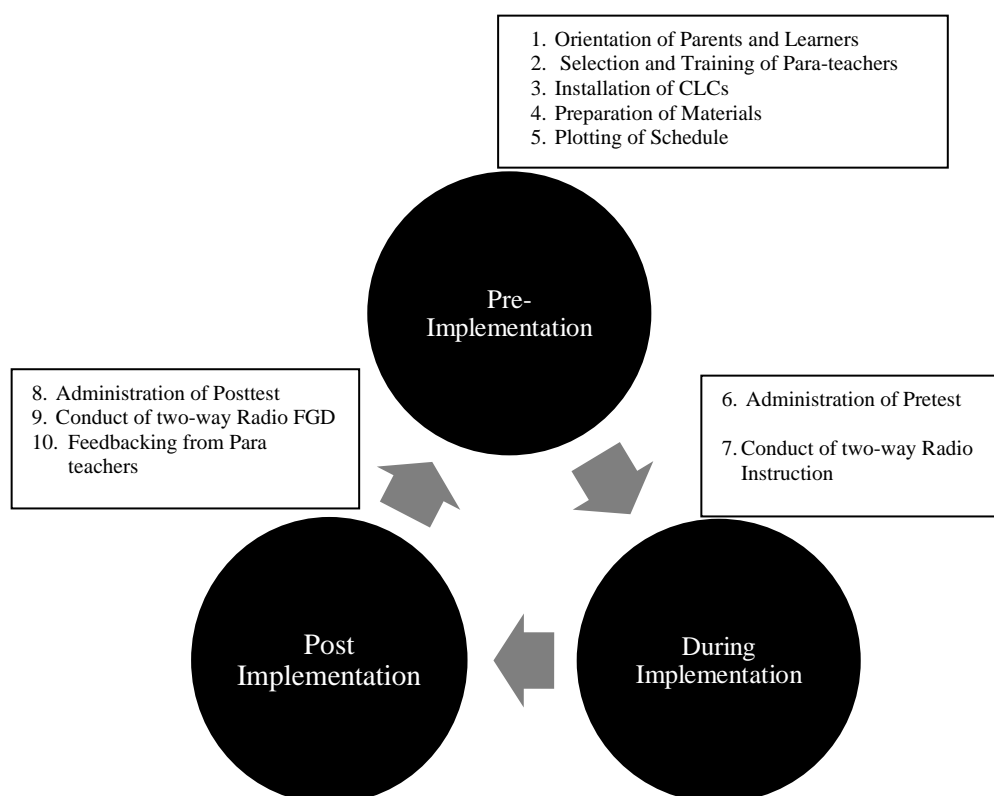
2. Methodology

This study employed a descriptive design with quantitative and qualitative support. The combination of these quantitative and qualitative data enabled the researchers to describe the levels of performance of learners before and after the conduct of two-way radio instruction, as well as to explore learners' perception on the instructional intervention.

2.1 Participants

The participants of this study were all nineteen (19) Grade 2 learners of Linanot Elementary School enrolled for the school year 2020-2021.

2.2 Implementation Process



2.2.1 Pre-implementation



Picture 1: Pre-implementation activities
(Parents orientation, CLC installation and radio acquisition)

Pre-implementation process included 1) orientation of parents and learners, 2) selection and trainings of para-teachers, 3) Installation of CLCs, 4) preparation of materials, and 5) plotting of schedule. Details of each single process could be clarified as following.

1) Orientation of Parents and Learners

A Homeroom Parent-Teacher (HPTA) orientation was conducted to inform the Grade 2 parents on the guidelines of the intervention that includes the proper use of radios, the plotting of schedules and groupings of learners, and the mentoring of the para-teachers. The orientation was followed by a simulation drill, as agreed by the parents and the teacher, to practice the learners themselves on the technical usage of the radios.

2) Selection and Trainings of Para-teachers

Potential para-teachers, those who at least reached the high school level, were identified to facilitate the learners in the Community Learning Centers (CLCs) during instruction. During the module distribution schedule, the identified para-teachers were mentored by the teacher on how to facilitate and manage learners' behaviors. Lesson guides were also given and discussed to ensure harmonious flow of instruction.

3) Installation of CLCs

With the help of General Parent-Teachers Association (GPTA) officials, and barangay officials, the community learning centers (CLCs) were installed. The facilities were arranged accordingly to ensure compliance with the health and safety guidelines imposed by the Inter-Agency Task Force (IATF). Sanitation materials were also present in the CLCs.

4) Preparation of Materials

The following materials were prepared prior to the conduct of two-way radio instruction.

Hand-held Two-way Radio. Twenty (20) units of short-ranged WLN KD-C10 two-way radio walkie talkies were utilized during instruction. These license-free units use a single-radio channel where only one radio on the channel can transmit at a time, although any number can listen. Communication using this device happens using a push-to-talk (PTT) button and can only cover a maximum range of 3km in an open area. However, the provision of VHF/UHF antennas individually mounted on the two-way radios, increased the radios' transmitting gain up to a maximum range of 7km.

Lesson Guide. A detailed lesson plan (DLP) for Grade 2 Mathematics was collaboratively designed by the researchers. It covered the lesson on solving routine word problems in subtraction including money. The plan was streamlined to establish a thematic alignment of standards with the competencies and activities.

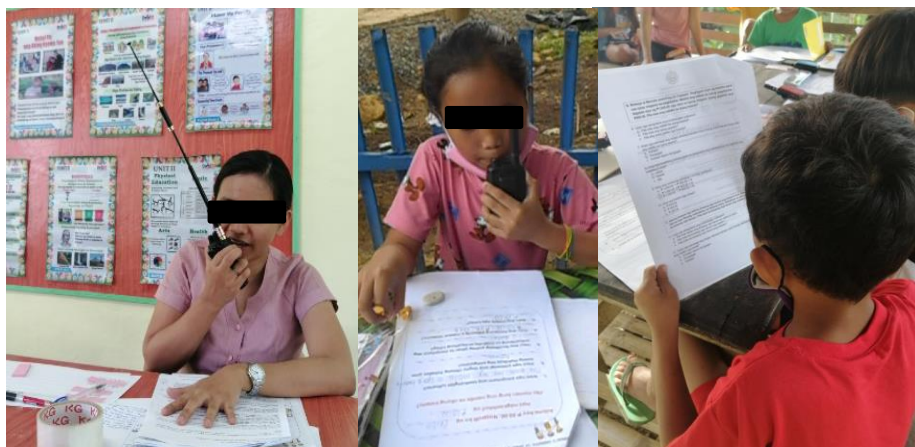
Teacher-made Test. An objective-type test covering the Most Essential Learning Competencies (MELCs) specific to problem-solving mathematics was given twice to the participants; administered before and after the treatment. The questionnaire has four (4) problems with five (5) sub-questions structured in multiple-choice format.

Interview questions for Focus Group Discussion (FGD). A two-way radio Focus Group Discussion (FGD) was conducted with the participants in order to elicit comments, reactions and experiences along the implementation of two-way radio instruction.

5) Plotting of Schedule

A class of ten learners, as maximum, can be accommodated in the CLC per session due to the limited number of radios and to ensure that stringent physical distancing is observed. Hence, the Grade 2 learners were group into two based on their location. A schedule of two-way radio class was set to each group of learners. A copy of the schedule was given to the parents for their guidance.

2.2.2 During Implementation



Picture 2: Grade 2 teacher and learners during the conduct of two-way radio instruction

During implementation process included 1) administration of pre-test, and 2) conducting of two-way radio instruction.

1) Administration of Pre-test

The teacher conducted pre-testing to the participants. Filled out test questionnaires were checked and scores were recorded and tabulated.

2) Conduct of two-way radio instruction

On the day of implementation, the first group of learners, along with the para-teacher, convened in a specified Community Learning Center (CLC), while the teacher was situated in the school. Attendance was checked for monitoring purposes. Whole period classroom instruction was carried out using two-way radios. The same process and set of conditions were observed and applied to the second group of learners the following day.

2.2.3 Post-Implementation



Picture 3: FGD with learners and parents feedbacking using two-way radio

Post implementation process included 1) administration of posttest, 2) conducting of two-way radio focus group discussion (FDG), and 3) feedbacking from para-teachers

1) Administration of Posttest

A posttest was administered to all Grade 2 learners. The learners' scores in this test were used in conjunction with the pretest scores to measure the effectiveness of two-way radio instruction in the performance of learners in mathematics.

2) Conduct of two-way radio Focus Group Discussion (FGD)

A two-way radio focus group discussion was conducted to the ten (10) randomly selected participants in order to elicit comments, reactions and experiences along the implementation of two-way radio instruction. Safety health protocols in the CLC were strictly observed upon the conduct of the group discussion.

3) Feedbacking from Para-teachers

The researchers conducted debriefing to process the experiences of the para-teachers as they facilitated learning in the CLCs. The para-teachers provided feedback and expressed their personal opinions with two-way radio instruction.

2.3 Data analysis

This descriptive research gathered both quantitative and qualitative data needed to describe and examine relationships among variables in the study. Quantitative data were gathered using an objective test questionnaire to describe the level of performance of learners in Mathematics and determine the significant differences in their level of performance before and after participating in two-way radio instruction. Meanwhile, qualitative technique was undertaken using Focus Group Discussion (FGD) in order to explore and verify learners' experiences in the instructional intervention conducted.

3. Findings and discussion

3.1. The learners' levels of performance before and after participating in two-way radio instruction

Table 1: The Level of Performance in Mathematics Obtained by Grade 2 Learners Before and After Participating in Two-way Radio Instruction

| PRETEST | | | POSTTEST | | |
|---------|-------|-------------|----------|-------|-------------|
| Mean | SD | Description | Mean | SD | Description |
| 7.32 | 3.449 | Approaching | 11.11 | 4.569 | Proficient |

The level of performance obtained by the learners in Mathematics before and after participating in two-way radio instruction is presented in Table 1. The pre-test mean score of the learners was 7.32 (Approaching) and the post-test mean score was 11.11 (Proficient). This implies that at the entry level, the learners were approaching the learning objective. They demonstrated partial mastery of the content and performance standards or learning goals. However, after the conduct of the instructional intervention, the learners have reached the proficient level. Thus, the learning objective was attained and they have demonstrated adequate mastery of the content and performance standards or learning goals. This is consistent with the findings of Bosch (2005) that radio has emerged as an effective tool to bridge gaps in education as it helps in improving the learning outcomes of the learner. When learners are given the opportunity to participate in two-way radio instruction, they will have a better understanding of the mathematical concepts that allow them to understand the mathematical operations and word problems.

3.2. Comparison of Students' Mean Scores between before and after Participating in Two-Way Radio Instruction

Table 2: The Test of Difference on Pretest and Posttest Mean Scores of Grade 2 Students who participated in Two-way Radio Instruction

| Posttest- Pretest Mean Scores | Paired Differences | | | | | t- value | df | Sig. (2- tailed) | Remarks |
|--|--------------------|------|-----------------------|---|-------|-------------|----|---------------------|-------------|
| | Mean | SD | Std. Error Mean | 95% Confidence Interval of the Difference | | | | | |
| | | | | Lower | Upper | | | | |
| | | | | | | | | | |
| | 3.79 | 3.16 | 0.72 | 2.27 | 5.31 | 5.24 | 18 | .0001 | Significant |

Shown in Table 2 is the test difference on pretest and posttest mean scores of Grade 2 learners who participated in two-way radio instruction. The table indicates that there was a significant difference in the pretest ($M=7.32$, $SD=3.45$) and post-test ($M=11.11$, $SD=4.57$) mean scores obtained by the learners who participated in two-way radio instruction, $t(18)=5.2$, $p<.001$. This finding is supported by Ho and Thukral (2009) as they found out that exposure to IRI has not only improved the access to education, but more importantly, improved the learners' academic performance. The use of two-way radio as an auditory scaffolding tool supplements the teaching-learning process and produces learning gains. It allows back-and-forth communication between the teacher and the learners. When learners receive support and assistance through scaffolding, they will successfully perform certain tasks (Reiser, 2004). Moreover, the learners become more responsible for their learning, more motivated, and more successful, when guided, supported, and provided with the necessary attributes (Vacca, 2008).

3.3. Learners' perceptions towards two-way radio instruction

The following themes emerged in the focus group discussion conducted by the researchers.

Theme 1: Benefits of the use of two-way radio

The learners viewed the use of a two-way radio as beneficial in addressing their concerns when they encounter difficult tasks in the course of their learning. They have indicated that with the aid of two-way radios, their teachers can deliver and explain a specific lesson or material even without meeting them face-to-face. In fact, one respondent emphasized the significant role of radio in addressing their questions directly. Meanwhile, these findings were parallel to the result of the investigation conducted by Kurni (2021), who found out that learning by using walkie-talkie was successful and effective because it improved students' learning abilities through independent learning, increase student motivation, stabilized the learning process during the COVID-19 pandemic, and reduced the spread of COVID-19. A study by Olakulehin (2016) also demonstrated similar results, highlighting the use of instructional radio combined with lecture method in promoting and enhancing effective teaching-learning process. Furthermore, learning engagement was also implied in the interview. As articulated by some students:

R8: *Ganahan ko mogamit sa radyo para pag maglibog ko, manawag lang kay Ma'am.*
(I like to use the radio because I can easily call when I am confused.)

R7: *Mas dali ang radyo...basta layo ang maestra, dili makaanhi sa balay pwede man magamit ang radyo.*

(It is easy to use the radio especially if the teacher cannot do home visit.)

R5: *Okey kaayo para madungog nako akong maestra.*

(It is very okay so I can hear my teacher.)

Theme 2: Challenges in the use of two-way radio in Mathematics

The learners cited some of the challenges they encountered during the conduct of two-way instruction. These challenges revolved around the technical aspects. The technical difficulties encountered by the learners can be attributed to their first-time experience in using the gadget.

R2: *Lisod ang pagpislit pislit.*

(It is difficult to press the radio button.)

R1: *Maglisod usahay motubag kay kusog kaayo ang tingog sa radyo.*

(It is hard to answer some questions when the radio echoes.)

R4: *Makalimot ko usahay og pislit sa radyo.*

(I sometimes forget to press the radio button.)

Theme 3: Future use of the two-way radio

Given their learning experiences, all the ten (10) interviewees recommended the use of two-way radio in future instructions. They also cited that the intervention should be extended in the remaining quarters.

R6: *Apilan og radyo ang modyul para dali.*

(Use radio along with the module to make the instruction easy.)

R10: *Okey nga naa silang duha kay lingaw.*

(It is okay to have both because it is fun.)

R8: *Kanang naa gihapon silang duha sa sunod kay nindot gunitan ang radyo*

(I prefer both in the next quarters because it is nice to hold the radio.)

R1: *Mag-module og mag-radyo kay ganahan ko*

(I like the combination of module and radio.)

The FGD responses supported the results of the test given after the intervention was made. Thus, two-way radio instruction is pivotal within the framework of modular distance learning as it can be an effective mode of teaching.

3.4. School-based project for instructional improvement

In this study, the use of two-way radio instruction is proven to be effective in improving the performance of Grade 2 learners in Mathematics. The issue of ensuring quality instruction amid the pandemic situation has been addressed. However, this concern is also prevalent in all other levels. Thus, the researchers were prompted to propose a school-based project that would require the implementation of such intervention in all learning areas for all grade levels.

The creation of Project R.A.D.I.O. (Radio-Assisted Delivery in improving Instructional Outcome) stemmed from the need to ensure quality instruction amidst pandemic. This project aimed to ensure that learners grasp the curricular standards and teachers gauge the learning progress using an instructional design that will not compromise their health, safety, and well-being.

Project R.A.D.I.O. is an instructional intervention to the emerging challenges faced by teachers in delivering basic quality education. Hand-held radio served as an educational medium that spans great distances and functions in real-time without the use of main

power. Furthermore, it is an auditory scaffolding tool that has the educational power of stimulating abstract thinking and enriching the learner's imagination.

This intervention employs a weekly radio instruction scheme where each grade level is assigned with fixed schedules. The learners shall report to the community learning centers (CLCs), along with the para-teachers, during the agreed schedules for regular instructions with their advisers.

A class of 10 learners, as maximum, is accommodated in the CLC per session due to the limited number of radios. This is also to ensure that stringent physical distancing is practiced.

Teachers are tasked to design a detailed lesson plan (DLP) that integrates the use of two-way radio. This DLP needs to be checked weekly by the school head prior to the conduct of instruction. Likewise, the supplementary materials must also be reproduced before the mentoring sessions of para-teachers.

Each teacher is given two-three sessions per week to accommodate the number of learners per grade level. The plotting of schedules will be collaboratively accomplished by the teachers. A copy of the weekly schedule will then be given to the parents for their guidance.

During the module distribution schedule, the identified para-teachers will be mentored by the teachers. They will be given training on how to facilitate and manage learners' behaviors. Lesson guides will also be given and discussed to them to ensure a harmonious flow of instructions.

Prior to the conduct of two-way radio instruction, teachers are asked to administer a pre-test. Pre-assessment allows teachers to establish a baseline that will determine the effects of the project on the learners' academic performance. The teachers are also encouraged to conduct debriefing in order to process the experiences of the para-teachers as they facilitated learning in the previous week. Similarly, parents must be encouraged to give feedback using the parents' journal.

Validation of the learners' academic progress based on the weekly test results and qualitative data from para-teachers and parents shall be conducted by the school head. Weekly monitoring becomes the basis of the school head in the provision of technical assistance to the teachers and para-teachers.

4. Conclusions

This research indicated that the learners' performance in Mathematics would likely increase or improve if they are exposed to the instructional intervention using a two-way radio. The findings stated further that two-way radio instruction would be helpful and responsive in ensuring contextual, engaging, and relevant learning experiences amidst the restrictions set in the "new normal" learning delivery. This notion was supported by the participants' responses upon examining their experiences towards the intervention during FGD. The learners have explicitly elaborated that their learning will be more guided with two-way radio instruction, and their queries will be easily communicated to their teachers.

The study likewise revealed that modular learning modality, if backed up with two-way radio instruction, will produce meaningful learning opportunities. This ideal blend would help reinforce learning that the learners attained using printed materials with radio-assisted instruction. That aims to revive the element of "teacher presence"- a genuine connection between the teacher and their learners, the same factor that is difficult to establish, especially during these challenging times.


With the research results, the basis for the formulation of a school-based instructional program was laid. Through the implementation of Project R.A.D.I.O., its main program component, the instructional needs of learners will be addressed while ensuring the provision of access and quality in education amidst the pandemic.







5. References

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Appendix

Sample lesson presentation using two-way radio instruction

| | | | | | | | | | | | | | | | |
|---|-------------------------------------|---|----------------------------|----------------|-------------|---|---|---|---|---|-----------|-----------|-----------|-----------|-----------|
|  | Grade 2 DAILY LESSON GUIDE | School: | Linanot Elementary School | Grade Level: | II | | | | | | | | | | |
| | | Teacher: | Micha Espadilla Gabule | Learning Area: | Mathematics | | | | | | | | | | |
| | | Teaching Dates: | Week 5: February 1-5, 2021 | Quarter: | 2nd Quarter | | | | | | | | | | |
| I. OBJECTIVES | | | | | | | | | | | | | | | |
| A. Content Standards | | The learner demonstrates understanding of subtraction of whole numbers up to 1000 including money. | | | | | | | | | | | | | |
| B. Performance Standards | | The learner is able to apply subtraction of whole numbers up to 1000 including money in mathematical problems and real-life situations. | | | | | | | | | | | | | |
| C. Learning Competencies/ Lesson Objectives | | Visualizes, represents, and solves routine and non-routine problems involving subtraction of whole numbers including money with minuends up to 99 with and without regrouping using appropriate problem-solving strategies and tools (M2NS-IIc-34.2) Cognitive: Tell what is asked, what is/are given, word clues, and operation to be used in word problems involving subtraction of whole numbers including money Psychomotor: Use five (5) guide questions in solving routine problems Affective: Demonstrate sound reasoning in spending money | | | | | | | | | | | | | |
| II. CONTENT | | | | | | | | | | | | | | | |
| A. Subject Matter | | Solving Routine Problems involving Subtraction of Whole Numbers including Money | | | | | | | | | | | | | |
| III. LEARNING RESOURCES | | | | | | | | | | | | | | | |
| A. References | | K to 12 Curriculum Grade 2 – MATHEMATICS pp. 35-41 | | | | | | | | | | | | | |
| 1. Teacher’s Guide Pages | | Mathematics Lesson Guide pp. 126-128 | | | | | | | | | | | | | |
| 2. Learner’s Material Pages | | Mathematics 2 Module pp. 41-55 | | | | | | | | | | | | | |
| 3. Textbook Pages | | Mathematics Sinugbuanong Binisaya pp. 103-110 | | | | | | | | | | | | | |
| B. Other Learning Resources | | Two-way radio, Mathematics 2 SLM, Activity Notebook Images Used: Picture of toys (https://bit.ly/3fBARsZ), Picture of fruits (https://bit.ly/3rVluj3), Picture of school supplies (http://bitly.ws/fWis), Radio Icon (http://bitly.ws/fWiv), Paper-and-Pencil Icon (http://bitly.ws/fWiA) | | | | | | | | | | | | | |
| IV. PROCEDURES | | | | | | | | | | | | | | | |
| A. PREPARATORY ACTIVITIES | | | | | | | | | | | | | | | |
| A. Drill | | Subtract mentally. (to be answered orally) <table><tr><td>9</td><td>6</td><td>8</td><td>7</td><td>9</td></tr><tr><td><u>-3</u></td><td><u>-2</u></td><td><u>-5</u></td><td><u>-4</u></td><td><u>-5</u></td></tr></table> | | | | 9 | 6 | 8 | 7 | 9 | <u>-3</u> | <u>-2</u> | <u>-5</u> | <u>-4</u> | <u>-5</u> |
| 9 | 6 | 8 | 7 | 9 | | | | | | | | | | | |
| <u>-3</u> | <u>-2</u> | <u>-5</u> | <u>-4</u> | <u>-5</u> | | | | | | | | | | | |
| B. Review | | Solving subtraction problem and comprehension check-up (to be answered orally) (Reference: Mathematics Module Pagsusi pp. 42-43) The teacher will present the problem using the Directed Reading-Thinking Approach. <i>Niadto si Rodulfo sa bukid uban ang iyang tatay.* Nakita ni Rodulfo nga adunay 18 ka mga saging nga lunhaw ug dalag.** *** 9 niini ang kolor lunhaw. **** Pila man kabuok ang saging nga dalag?*****</i> * Kinsa ang niadto sa bukid? | | | | | | | | | | | | | |

| | |
|------------------------------------|--|
| | <p>** <i>Unsa ang nakita niya sa bukid?</i></p> <p>*** <i>Pila man ka saging ang nakita ni Rodolfo?</i></p> <p>**** <i>Pila man kabuok ang saging nga lunhaw?</i></p> <p>***** <i>Pila man kabuok ang saging nga dalag?</i></p> |
| C. Motivation | <p>The 50-peso Dilemma</p> <p>The learners will be given ₱50.00 (play money) and will be presented with different priced items (Toys, foods, school supplies, etc.). They will be asked to choose for the item they will prefer to purchase and provide justification on why they choose that particular item.</p> <div style="display: flex; flex-direction: column; align-items: center;"> <div style="display: flex; align-items: center; margin-bottom: 20px;">  <div style="margin-left: 20px;">  </div> </div> <div style="display: flex; align-items: center; margin-bottom: 20px;">  <div style="margin-left: 20px;">  </div> </div> <div style="display: flex; align-items: center;">  <div style="margin-left: 20px;">  </div> </div> </div> <p>Valuing: <i>Why did you choose to buy that item? Was it a right choice?</i> (Let the learners justify their answers. Follow up questions may also be given.)</p> |
| B. DEVELOPMENTAL ACTIVITIES | |
| A. Presentation | <p>The students read a story. (Reference: <i>Mathematics Module Sulayi ug Kat-oni p. 43</i>)</p> <p><i>Si Raymond adunay ₱ 50.00. Mipalit siya sa tindahan og sliced bread nga nagkantidad og ₱ 30.00. Pila naman lang ang nabilin sa iyang kwarta?</i></p> <p><i>Comprehension Questions:</i></p> <ol style="list-style-type: none"> <i>Kinsa ang mipalit sa sliced bread?</i> <i>Asa niya gipalit ang sliced bread?</i> <i>Pila ang kwarta nga gibayad ni Raymond? (The learners will write the figure in their activity notebook.)</i> <i>Pila ang kantidad sa iyang gepalit nga sliced bread? (The learners will write the figure in their activity notebook.)</i> <i>Pila naman lang ang nabilin sa iyang kwarta?</i> |

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| B. Guided Practice | <p>Concept Development: Solving Routine Problems involving Subtraction of Whole Numbers including Money (Instruct students to refer to page 43 of Math SLM)</p> <p><i>In solving word problems, there are steps that you need to follow to understand fully these problems. Here are the guide questions:</i></p> <ol style="list-style-type: none"> 1. <i>Unsa nga pangutana ang kinahanglan sulbaron? (Let the learners underline the question from the problem.)</i> 2. <i>Unsa nga pamaagi ang angay nimong buhaton aron imong matubag ang pangutana? (to be answered orally)</i> 3. <i>Unsa ang timailhang pulong gikan sa pangutana ang makatabang sa pagkuha sa insaktong tubag? (Let the learners encircle the word clue.)</i> 4. <i>Unsa ang numerong pahayag o number sentence? (to be answered orally)</i> 5. <i>Unsa ang insakto nga tubag? (to be answered orally)</i> |
| C. Finding practical applications of concepts and skills | <p>From the earlier activity, group the learners according to their chosen item. Let the learners solve their “50-peso dilemma” using five (5) guide questions in solving routine problems. Presentation of answers per group will follow.</p> <ol style="list-style-type: none"> 1. <i>Unsa nga pangutana ang kinahanglan sulbaron?</i> Tubag: _____ 2. <i>Unsa nga pamaagi ang angay nimong buhaton aron imong matubag ang pangutana?</i> Tubag: _____ 3. <i>Unsa ang timailhang pulong gikan sa pangutana ang makatabang sa pagkuha sa insaktong tubag?</i> Tubag: _____ 4. <i>Unsa ang numerong pahayag o number sentence?</i> Tubag: _____ 5. <i>Unsa ang insakto nga tubag?</i> Tubag: _____ |
| D. Generalization | <p>The learners will enumerate orally the five (5) guide questions in solving routine problems.</p> |
| E. Evaluation | <p>5-item quiz/Multiple Choice</p> <p>The learners will be given an activity sheet. (to be facilitated by the assigned para-teacher)</p> <p>(Reference: Mathematics Module Unang Gawasnong Buluhaton p. 51-52)</p> <p>Pangalan: _____ Petsa: _____</p> <p>Basaha ug tubaga ang gumonhap gamit ang routine nga pamaagi. Lingini ang insaktong tubag.</p> <p>Nagpatimbang si Rosa sa iyang mga kopras. Nahalanan siya ug ₱ 850.00. Gibayad niya ang ₱ 150.00 niini sa motor nga iyang gipakyaw. Pila man ang iyang nabilin nga kwarta?</p> <ol style="list-style-type: none"> 1. <i>Unsa nga pangutana ang kinahanglan sulbaron?</i> <ol style="list-style-type: none"> a. <i>Pila ang halin niya sa kopras?</i> b. <i>Pila man ang iyang nabilin nga kwarta?</i> c. <i>Pila ang iyang gihatag nga kwarta sa motor nga gipakyaw?</i> 2. <i>Unsa nga pamaagi ang angay nimong buhaton aron imong mahibaluan kung pila ang nabilin sa iyang kwarta?</i> |

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| | <ul style="list-style-type: none">a. <i>Kuhaan</i>b. <i>Dungagan</i>c. <i>Kuhaan dayon dungagan</i> <p>3. <i>Unsa ang timailhang pulong gikan sa pangutana ang makatabang sa pagkuha sa insaktong tubag?</i></p> <ul style="list-style-type: none">a. <i>kwarta</i>b. <i>nabilin</i>c. <i>pila</i> <p>4. <i>Unsa ang numerong pahayag o number sentence?</i></p> <ul style="list-style-type: none">a. $\text{₱ } 850.00 + \text{₱ } 150.00 = N$b. $\text{₱ } 850.00 - \text{₱ } 150.00 = N$c. $\text{₱ } 850.00 \times \text{₱ } 150.00 = N$ <p>5. <i>Unsa ang insakto nga tubag?</i></p> <ul style="list-style-type: none">a. $\text{₱ } 700.00$b. $\text{₱ } 600.00$c. $\text{₱ } 500.00$ |
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