



Strengthening Mother-tongue based Education of Elementary Teachers in DepEd Cotabato/MBHTE BARMM through Instructional Materials Development and Validation

Philip Lester P. Benjamin
College/Unit Head/Project Leader

Sandra A. Nanding Component Leader

Debbie Marie Verzosa
Leorence Tandog
Florie Jane Tamon
Rowel Madio
Roel Valenton
Anna Jean Garcia
Leonard Paleta
Meriam Rubio
Jeaneth Licaros
Daryl Mae Mamon
Jonald Pimentel
Jennifer Pama
Honey Vicent Valle
Members



I. Executive Summary

This extension project aims to strengthen mother-tongue based education in the DepEd Cotabato Division through the development of instructional materials and capacity building for elementary teachers. The project is grounded in promoting linguistic and cultural diversity, improving student learning outcomes, and addressing the specific needs of students in the region.

By providing students with the opportunity to learn in their mother-tongue, the project seeks to preserve and promote linguistic and cultural heritage. Research indicates that students learn better when taught in their mother-tongue, which underscores the importance of this initiative in improving academic outcomes.

The project's objectives include developing high-quality mother-tongue based instructional materials in elementary mathematics and validating these materials through data analysis and feedback from teachers, students, and parents. By tailoring materials to students' linguistic and cultural backgrounds and building teachers' capacity to teach in the mother-tongue, the project aims to enhance education quality and promote diversity in the region.

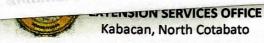
A courtesy call was made to Barangay Captain Hon. Lumambas and the principal of Nangaan Elementary School, Ma'am Salapudin, to introduce the CSM's extension project for the school year 2023-2024. This project aims to support elementary teachers in enhancing their teaching by providing supplementary instructional materials for challenging topics in mathematics. The CSM extension unit, in collaboration with faculty members, conducted an inception meeting and needs assessment on November 16, 2023. Subsequently, a training-workshop on instructional material (IM) development and validating a developed instructional material was held in December.

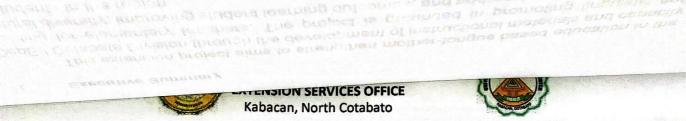
Through this initiative, the CSM seeks to contribute positively to the professional development of elementary teachers and ultimately enhance the quality of education provided to students.

II. Financial Report

Budget Utilization

Component	Allocation	Utilized	% Utlilized
Component 1: Development of high- quality mother-tongue based instructional materials in elementary	1 st Quarter	3,500	100%
mathematics that effectively engage and educate students.	2 nd Quarter	23,500	100%





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Component 2: Validation of mother- tongue based instructional materials developed for elementary mathematics	3 rd Quarter	29,958.38	100%
through feedback from teachers, students, and parents.	4 th Quarter	2,978.38	100%

III. **Major Activities Undertaken**

In February 2023, we initiated contact with a local elementary school representative and introduced our extension project, receiving positive feedback and providing a detailed project plan. Subsequently, we gathered necessary documentation, including consent forms, and secured permission to proceed, using an existing memorandum of agreement for efficiency and compliance.

In March 2023, a thorough needs assessment highlighted a specific need for mathematics support among Maguindanaon tribe students, emphasizing the importance of mothertongue instruction. This insight guided our project's focus.

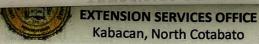
By June 2023, significant progress was made in revising our learning materials, with meticulous content review to ensure quality and alignment with project objectives.

On November 16, 2023, we conducted an inception meeting and pre-test at Nangaan Elementary School, identifying the need to adjust some materials due to language evolution among students.

On December 6, 2023, we conducted a program divided into two parts. The first part was a training session led by Dr. Debbie Marie B. Verzosa on instructional material (IM) development and validation. The teachers responded positively to the training, expressing enthusiasm and appreciation for the insights shared. The second part of the program involved the dissemination of the IM to the teachers. Each teacher received a copy of the IM. along with guidance on its implementation. The teachers were encouraged to provide feedback and suggestions for further improvement. Overall, the program was a success, and we are confident that the IM will greatly benefit the students' learning experience.

IV. Problems met during the conduct of the project

- 1. Changes in purchase requests (PRs) created delays in procurement
- 2. Conflict in availability of team members and stakeholders
- 3. Delayed release of project budget
- 4. Unforeseen weather conditions disrupting field activities
- 5. Changes in government policies affecting project plans
- 6. Insufficient staffing and resources allocated





٧. Recommendations

developed for elementary mathematics tongue based instructional materials

- 1. Establish a clear and streamlined process for PR creation and approval to minimize changes and delays.
- 2. Coordinate schedules in advance to ensure availability of all parties involved in project activities.
- 3. Advocate for timely release of project budgets and maintain regular communication with the funding agency.
- 4. Develop contingency plans for weather-related disruptions, such as rescheduling activities or implementing remote work arrangements.
- 5. Stay updated on government policies and regulations, and adapt project plans accordingly.
- 6. Allocate additional resources or personnel to address workload challenges and ensure timely project delivery.

VI. **Project Impact/Output**

The project is expected to at least generate the following:

Outputs:

- Developed and validated mathematics instructional materials tailored for mother-tongue based education.
- Improved mathematics academic performance and learning outcomes for students through the use of these materials.

Impact:

- Increased cultural pride and self-esteem among students as they see their language and culture represented in their education.
- Strengthened linguistic and cultural identity among students, fostering a sense of belonging and connection to their heritage.
- Enhanced quality of education in the area by providing effective and culturally relevant teaching materials, ultimately improving student engagement and understanding in mathematics.

VII. **Supplemental Activities**

VIII. Other Accomplishment

1. Establish a clear and streamlined process for PR creation and approval to

Recommendations



EXTENSION SERVICES OFFICE Kabacan, North Cotabato



TERMINAL REPORT

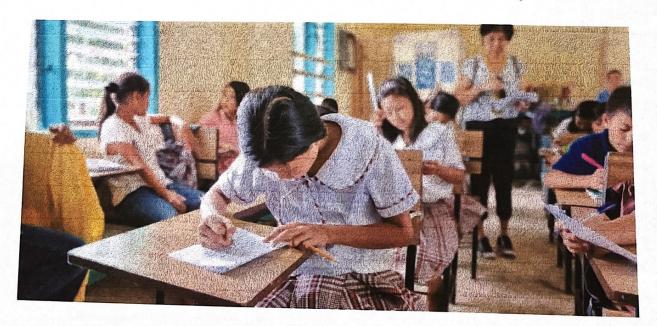
IX. Pictorials

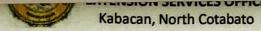






Inception Meeting with Teachers of Nangaan Elementary School









Conduct of needs assessment and Pre-test



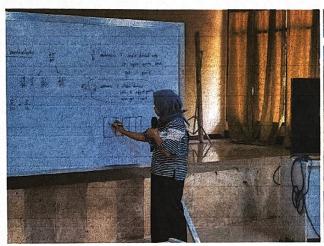


Visit at Nangaan Elementary School







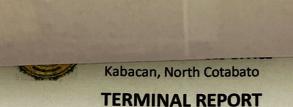




Training on IM Development and Validation of IM with the resource person Dr. Verzosa.





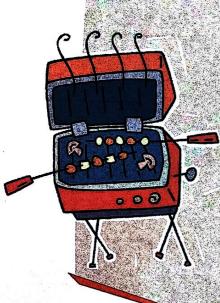




Teachers from Nangaan Elementary School participate in a training session on Instructional Material (IM) development, featuring Dr. Verzosa as the resource speaker.

Monitoring & Accomplishment Reports

1st Quarter M&A Report 2nd Quarter M&A Report 3rd Quarter M&A Report 4th Quarter M&A Report





University of Southern Mindanao EXTENSION SERVICES OFFICE

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Kabacan, North Cotabato

MONITORING/ ACCOMPLISHMENT REPORT

for the 4th Quarter, C.Y. 2023

and Validation of Instructional Materials for Elementary Mathematics Project Title: Strengthening Mother-tongue based Education of Elementary Teachers in DepEd Cotabato/MBHTE BARMM through Development

College/Unit: Graduate School/College of Science and Mathematics Budget Utilization to date: (%) ACTIVITIES Accomplishment % Completion Problem/s Action/s Taken Remarks/ % Completion 3 rd Quarter Target Actual (Cumulative) Encountered Recommendations Validation of the instructional materials 25% 100% 80% None None	Paleta, Meriam Rubio, Jeaneth Licaros, Daryl Mae Mamon, Jonald Pimentel, Jennifer Pama, Hone hool/College of Science and Mathematics Budget Utilization to date: (%) Accomplishment % Completion Problem/s Action/s Taken Target Actual (Cumulative) Encountered 55% 100% 80% None None	Anna Jean Garcia, Leonard Paleta, Meriam Rubio, Jeaneth Licaros, Daryl Mae Mamon, Jonald Pimentel, Jennifer Pama, Honey Vincent Valle College/Unit: Graduate School/College of Science and Mathematics Budget Utilization to date: (%) ACTIVITIES Accomplishment % Completion Problem/s Action/s Taken Remarks/ **Completion 3 rd Quarter Completion of the instructional materials 25% 100% 80% None None None		None	None	100%	100%	20%	Report Writing
Budget Utilization to date: (%) ion Problem/s Action/s Taken /e) Encountered	Anna Jean Garcia, Leonard Paleta, Meriam Rubio, Jeaneth Licaros, Daryl Mae Mamon, Jonald Pimentel, Jennifer Pama, Honey Vincent Valle College/Unit: Graduate School/College of Science and Mathematics Budget Utilization to date: (%) ACTIVITIES Accomplishment % Completion Problem/s Action/s Taken Recommendations Target Actual (Cumulative) Encountered Recommendations **Scompletion 3 rd Quarter** *	Jean Garcia, Leonard Paleta, Meriam Rubio, Jeaneth Licaros, Daryl Mae Mamon, Jonald Pimentel, Jennifer Pama, Honey Vincent Valle ge/Unit: Graduate School/College of Science and Mathematics Budget Utilization to date: (%) ACTIVITIES Accomplishment % Completion Problem/s Action/s Taken Recommendations Target Actual (Cumulative) Encountered Recommendations ompletion 3 rd Quarter 55%		None	None	80%	100%	25%	Validation of the instructional materials
Budget Utilization to date: (%) ion Problem/s Action/s Taken /e) Encountered	Anna Jean Garcia, Leonard Paleta, Meriam Rubio, Jeaneth Licaros, Daryl Mae Mamon, Jonald Pimentel, Jennifer Pama, Honey Vincent Valle College/Unit: Graduate School/College of Science and Mathematics Budget Utilization to date: (%) ACTIVITIES Accomplishment % Completion Problem/s Action/s Taken Remarks/ Target Actual (Cumulative) Encountered Recommendations	Jean Garcia, Leonard Paleta, Meriam Rubio, Jeaneth Licaros, Daryl Mae Mamon, Jonald Pimentel, Jennifer Pama, Honey Vincent Valle ge/Unit: Graduate School/College of Science and Mathematics				55%			% Completion 3 rd Quarter
ion Problem/s Action/s Taken	Anna Jean Garcia, Leonard Paleta, Meriam Rubio, Jeaneth Licaros, Daryl Mae Mamon, Jonald Pimentel, Jennifer Pama, Honey Vincent Valle College/Unit: Graduate School/College of Science and Mathematics Budget Utilization to date: (%) ACTIVITIES Accomplishment % Completion Problem/s Action/s Taken Remarks/	Jean Garcia, Leonard Paleta, Meriam Rubio, Jeaneth Licaros, Daryl Mae Mamon, Jonald Pimentel, Jennifer Pama, Honey Vincent Valle ge/Unit: Graduate School/College of Science and Mathematics	Recommendations		Encountered	(Cumulative)	Actual	Target	
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	Anna Jean Garcia, Leonard Paleta, Meriam Rubio, Jeaneth Licaros, Daryl Mae Mamon, Jonald Pimentel, Jennifer Pama, Honey Vincent Valle	Jean Garcia, Leonard Paleta, Meriam Rubio, Jeaneth Licaros, Daryl Mae Mamon, Jonald Pimentel, Jennifer Pama, Honey Vincent Valle		e: (%)	Budget Utilization to dat	/lathematics	cience and N	ol/College of S	College/Unit: Graduate Scho

Prepared by:

Noted by:

PHILIP LESTER P. BENJAMIN
Project Leader

Pecember 18, 2023

Dat

LEORENCE C. TANDOG
College/Unit Head

December 18,2023

Date

MARY JOY S. CANOLAS

Director for Extension Services

December 21, 2013

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USM-EXT-F07-Rev.3.2021.01.26



Training session on instructional material (IM) development and simplified fraction explanations led by Dr. Debbie Marie Verzosa, held at the GS Hall, USM. The session focused on equipping educators with effective strategies to create engaging IMs and teach fractions in a straightforward manner.

Additionally, the validation process for the IMs developed was overseen by Dr. Leorence Tandog and a team of experts, ensuring alignment with educational standards and effectiveness in facilitating learning.



University of Southern Mindanao EXTENSION SERVICES OFFICE

Kabacan, North Cotabato

MONITORING/ ACCOMPLISHMENT REPORT

and Validation of Instructional Materials for Elementary Mathematics Project Title: Strengthening Mother-tongue based Education of Elementary Teachers in DepEd Cotabato/MBHTE BARMM through Development for the 3rd Quarter, C.Y. 2023

Anna Jean Garcia, Leonard Paleta, Meriam Rubio, Jeaneth Licaros, Daryl Mae Mamon, Jonald Pimentel, Jennifer Pama, Honey Vincent Valle Proponent/s: Philip Lester Benjamin, Sandra Nanding, Leorence Tandog, Debbie Marie Verzosa, Florie Jane Tamon, Rowel Madio, Roel Valenton,

ACTIVITIES Accomplishment % Complet	Accomplishment	shment	% Completion	Problem/s Ac	ce: (%) Action/s Taken	Remarks/
	Target	Actual	Actual (Cumulative)	Encountered		Recommendations
% Completion 2 nd Quarter			55%			
Validation of the instructional materials	25%	0%	55%	Unable to proceed due to scheduling conflict	Identified scheduling conflict and attempted to reschedule	

Prepared by:

PHILIP LESTER P. BENJAMIN

Project Leader

September 11, 2023

Date

Noted by:

LEORENCE C. DANDOG
College/Unit Head

September 11,2023

Dat

MARY JOY S. CANOLAS

Director for Extension Services

September 14,2023

Date

USM-EXT-F07-Rev.3.2021.01.26

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University of Southern Mindanao EXTENSION SERVICES OFFICE



MONITORING/ ACCOMPLISHMENT REPORT

for the 2nd Quarter, C.Y. 2023

Project Title: Strengthening Mother-tongue based Education of Elementary Teachers in DepEd Cotabato/MBHTE BARMM through Development and Validation of Instructional Materials for Elementary Mathematics

% Completion 1st Quarter College/Unit: Graduate School/College of Science and Mathematics Proponent/s: Philip Lester Benjamin, Sandra Nanding, Leorence Tandog, Debbie Marie Verzosa, Florie Jane Tamon, Rowel Madio, Roel Valenton, Anna Jean Garcia, Leonard Paleta, Meriam Rubio, Jeaneth Licaros, Daryl Mae Mamon, Jonald Pimentel, Jennifer Pama, Honey Vincent Valle Development and refining of existing IMs **ACTIVITIES** Target 25% Accomplishment Actual 100% % Completion (Cumulative) 30% 55% Budget Utilization to date: (%) Encountered Problem/s None Action/s Taken None Recommendations Remarks/

Prepared by:

Noted by:

PHILIP LESTER P. BENJAMIN
Project Leader

July 3, 2023

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LEORENCE CTANDOG
College/Unit Head

July 3, 2023

Date

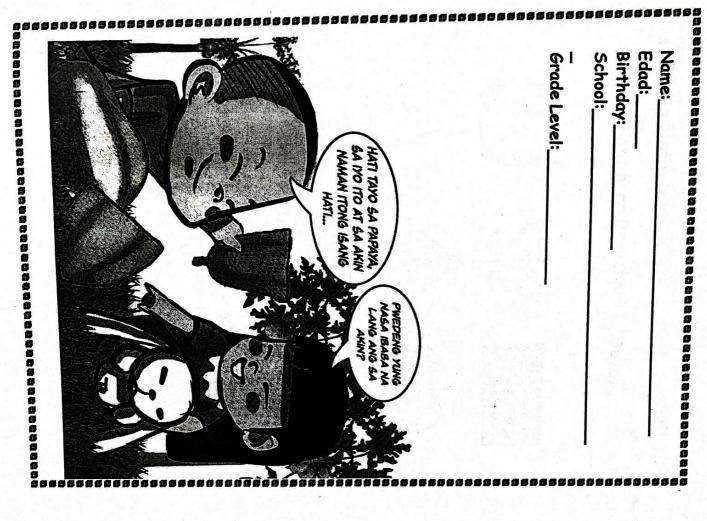
MARY JOY S. CAÑOLAS

Director for Extension Services

July 5, 2013

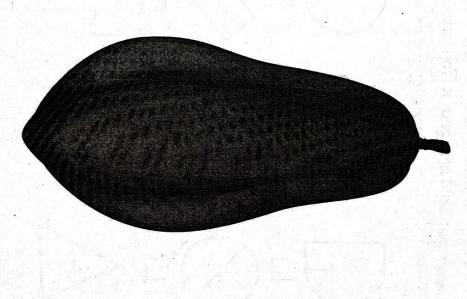
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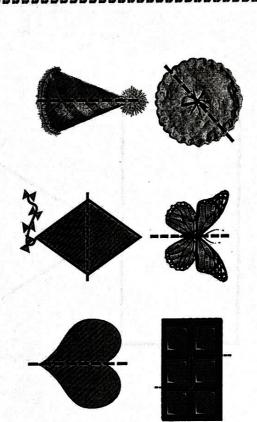
a Gawin Natin 'to

Hatiin sa dalawang pantay na bahagi itong papaya.



Suriin Natin 'to

Pantay na Pagkahati sa Dalawa

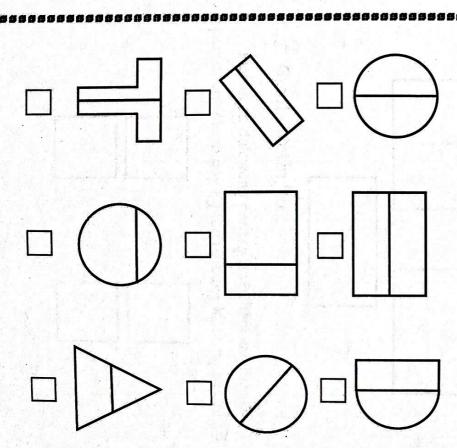


Hindi Pantay na Pagkahati sa Dalawa



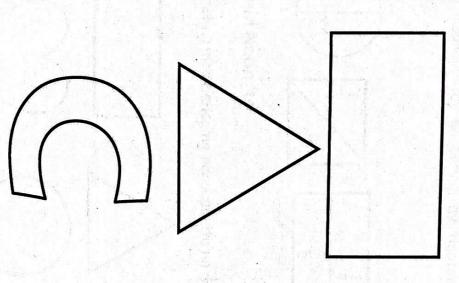
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Lagyan ng 🗸 ang mga nagpapakita ng pantay na pagkakahati at x ang mga hindi nagpapakita ng pantay na pagkakahati.



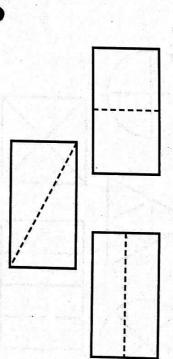
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sumusunod: Hatiin sa dalawang pantay na bahagi ang mga



3 Suriin Natin 'to

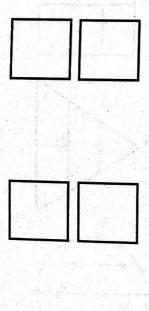
ilang mga halimbawa: ang isang parihaba o rectangle. Ang mga sumusunod ay Maraming paraan para hatiin sa pantay na bahagi





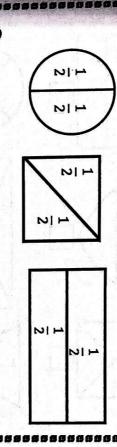
🚰 Gawin Natin 'to

parisukat. Magbigay ng iba't- ibang klase ng pagkahati. Hatiin sa dalawang pantay na bahagi ang bawat



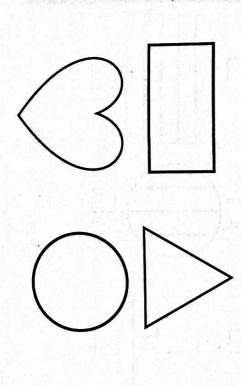
Isang Kalahati o One Half $(\frac{1}{2})$

Ang isang piraso ng isang buo na hinati sa dalawang magkapantay na bahagi ay tinatawag na $\frac{1}{2}$ (one half).



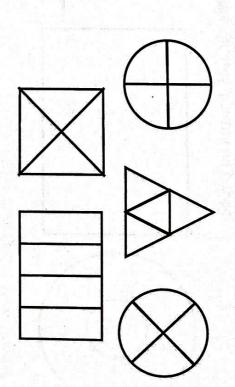
Gawin Natin 'to

Gumuhit ng mga bahaging nagpapakita ng $\frac{1}{2}$.

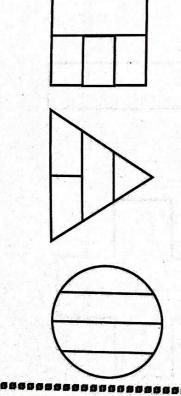


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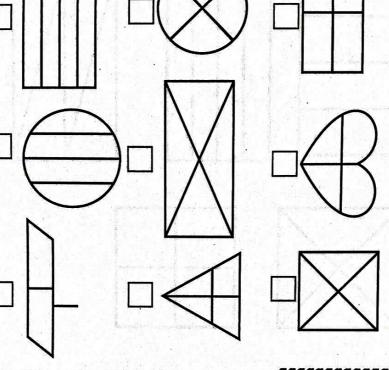
Pantay na Pagkakahati sa Apat



Hindi Pantay na Pagkahati sa Apat



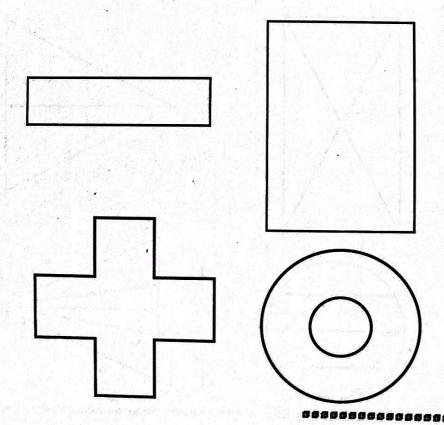
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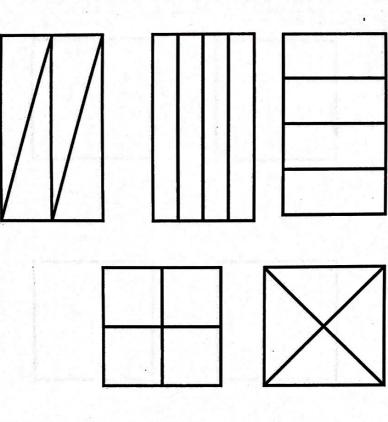
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magkapantay-pantay na bahagi. Hatiin ang mga sumusunod na hugis sa apat na

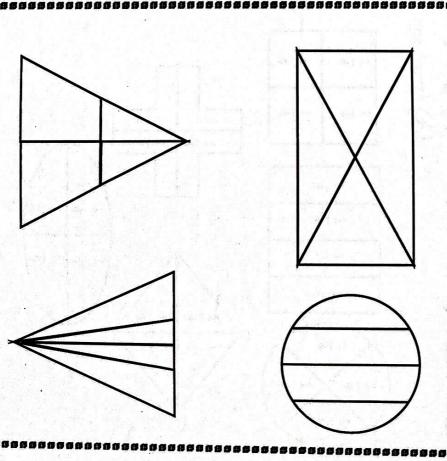


3 Suriin Natin 'to

May iba't ibang paraan ng paghati sa apat nang magkapantay. Ilan lamang sa mga ito ay:

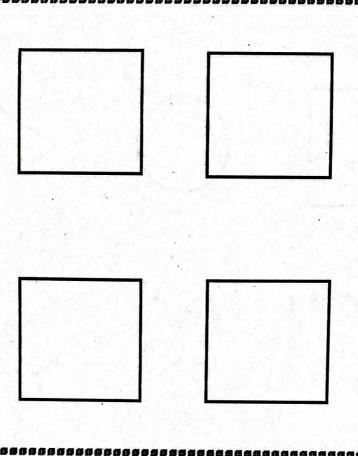


Ang mga sumusunod naman ay halimbawa ng nahati sa apat ngunit sa hindi magkakapantay na paraan at $\frac{1}{4}$.



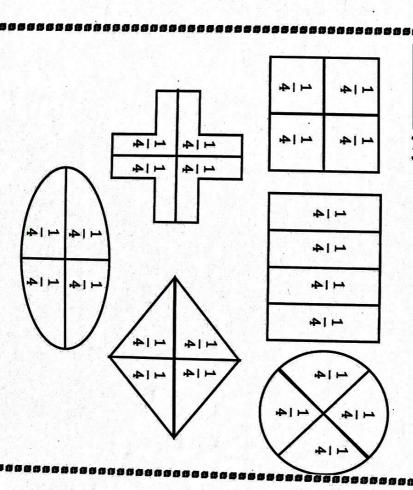
Gawin Natin 'to

Hatiin sa apat na magkapantay-pantay na bahagi ang bawat parisukat. Magbigay ng magkakaibang paraan pagkakahati.



Isang Kapat o One Fourth $\left(rac{1}{4} ight)$

Ang isang piraso ng isang buong hinati sa apat nang magkakapantay na bahagi ay tinatawag na isang kapat o one fourth $(\frac{1}{4})$.





University of Southern Mindanao **EXTENSION SERVICES OFFICE**



Kabacan, North Cotabato

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and Validation of Instructional Materials for Elementary Mathematics Project Title: Strengthening Mother-tongue based Education of Elementary Teachers in DepEd Cotabato/MBHTE BARMM through Development Conduct profiling and needs College/Unit: Graduate School/College of Science and Mathematics Anna Jean Garcia, Leonard Paleta, Meriam Rubio, Jeaneth Licaros, Daryl Mae Mamon, Jonald Pimentel, Jennifer Pama, Honey Vincent Valle proponent/s: Philip Lester Benjamin, Sandra Nanding, Leorence Tandog, Debbie Marie Verzosa, Florie Jane Tamon, Rowel Madio, Roel Valenton, permissions and approvals from relevant authorities Obtain necessary assessment **ACTIVITIES** Target Accomplishment 10% 20% Actual 100% 100% % Completion (Cumulative) 30% 10% **Budget Utilization to date: (%) Encountered** Problem/s None None Action/s Taken None None Recommendations Remarks,

Prepared by:

PHILIP LESTER P. BENJAMIN **Project Leader**

April 7, 2023

Noted by:

LEORENCE C. TANDOG College/Unit Head

April 10, 2023

Director for Extension Services MARY JOY S. CAÑOLAS

April 10, 2023

USM-EXT-F07-Rev.3.2021.01.26

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NTP #: 2023-E009 January 26, 2023

PROF. PHILIP LESTER P. BENJAMIN University of Southern Mindanao Kabacan, Cotabato

Dear PROF. BENJAMIN,

Your extension project proposal had been approved by the URDEC for 2023 funding in the amount of Php 60,000.00 (Extension Fund-05) allocation. Notice is hereby given that the conduct of the project/study entitled "Strengthening mother-tongue based education of elementary teachers in Dep-Ed Cotabato/MBHTE BARMM through instructional materials development and validation" may commence not later than 7 days after the receipt of this notice up to December 2023.

As Project Leader, you shall be responsible for ensuring the completion of the extension project in accordance with the approved work and financial plan. Furthermore, you have to submit a quarterly progress report and news feature article about your activities. Make oral presentation during the University Research, Development and Extension In-House Reviews. Upon completion of the project, you have to submit six (6) copies of the terminal report not later than March 2024. Acknowledge ESO in all reports, articles and media releases related to the project. By virtue of this designation, you shall be entitled to corresponding honorarium subject to existing laws or policy on this matter.

In the event that you discontinue the extension project without justifiable reasons or deliberately avoid your responsibilities stated above, you have to refund/return to the management the total amount you have actually spent.

Please acknowledge receipt and acceptance of this NOTICE by signing both copies in the space provided below.

very truly yours.

MARY JOY'S. SANOLAS, PhD

Director for Extension

Recommending approvai:

MA. TEODORA N. CABASAN, PhD Vice Pres. for Res., Dev't. & Ext'n. and Vice-Chairman, URDEC

Approved by:

FRANCISCO GILA. GARCIA, PhD SUC President IV, USM and Chairman, URDEC

Conforme:

PHILIP LESTER P. BENJAMIN Project Leader **Project Title**

: Strengthening mother-tongue based education of elementary teachers in Dep-Ed Cotabato/MBHT BARMM through instructional materials development and Validation"

Project Leader

: Philip Lester P. Benjamin

Component 1

: Development of high-quality mother-tongue based instructional materials in elementary mathematics that effectively engaged and educate students.

Component Leader

: Philip Lester P. Benjamin

Component 2

: Validation of mother-tongue based instructional materials developed for elementary mathematics through feedback from teachers, students, and parents.

Component Leader

Sandra A. Nanding

November 16, 2023

<u>Hon. Patu Matog Lumambas</u> <u>Kapitan , Nangaan</u>, Kabacan Cotabato

Dear Kapitan Lumambas,

I hope this letter finds you in good health and high spirits.

I am writing on behalf of our team involved in the extension project titled "Strengthening Mother-Tongue Based Education of Elementary Teachers in DepEd Cotabato through Instructional Materials Development and Validation." We are eager to collaborate with your local elementary school in your barangay to enhance the educational experience for both teachers and students.

We kindly request your permission to conduct our project activities at the local elementary school in your barangay.

We believe that our project can greatly contribute to the enhancement of mother-tongue based education in your school, and we are enthusiastic about the potential positive impact it can have on the learning environment.

Your support and cooperation in this endeavor would be invaluable, and we look forward to the opportunity to work together.

Thank you for considering our request. We anticipate a fruitful partnership that will benefit the educational community at the local elementary school in your barangay.

Warm regards

Philip Lester P. Benjamin, Ph.D. CSM Extension Project Leader

Received by:

DATU L. ABAS

"UNITY IN DIVERSITY AND
SUSTAINABLE DEVELOPMENT IN
MINDANAO THROUGH QUALITY AND RELEVANT EDUCATION."

Attachments

Inception meeting and conduct of needs assessment

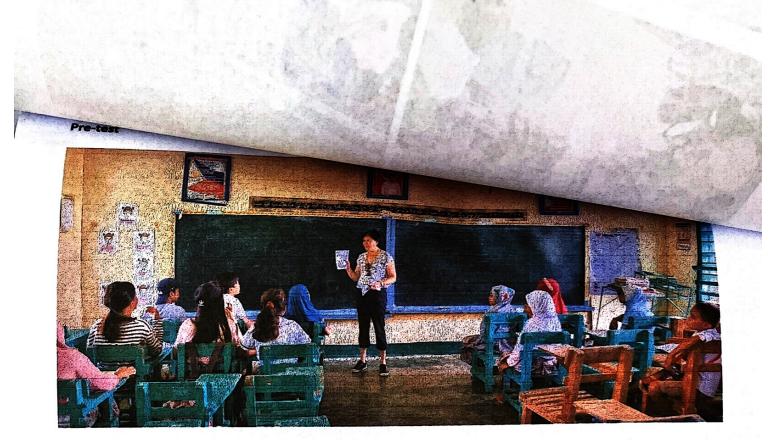






This photo was captured during our visit to Nangaan, Kabacan, Cotabato, where we conducted a needs assessment and held an inception meeting. Prior to our activities, we sought permission from the Barangay Captain as a courtesy. Our visit aimed to understand the community's needs and gather insights to inform the development of our project.

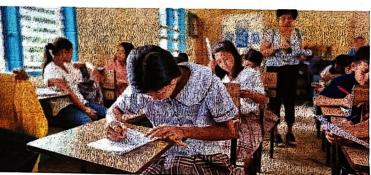












During our visit, we also gave a test before starting our project. This test helped us understand how well students and teachers already knew about fractions in math. The results will help us see if our project helps them learn better.

Result of Needs Assessment

During our visit to Nangaan Elementary School to conduct a needs assessment, several needs were identified among the educators:

- 1. They need more materials to help teach fractions better.
- 2. They want easier ways to explain fractions to students.
- 3. They think it's important to use the students' own language and culture when teaching math.
- 4. Teachers want training to improve how they teach math, especially fractions.
- 5. They believe sharing ideas and materials with other teachers is important for improving teaching.

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