



Republic of the Philippines  
**Department of Education**  
REGION VII – CENTRAL VISAYAS  
Schools Division of Negros oriental


**Office of the Schools Division Superintendent**

DIVISION MEMORANDUM  
No. 1047, s. 2021

**DIVISION VIRTUAL TRAINING-WORKSHOP ON MATHEMATICAL INVESTIGATIONS AND MODELLING**

To: Assistant Schools Division Superintendent  
Chief, CID and SGOD  
Public School District Supervisor  
School Heads  
All Others Concerned

1. This Office through the Curriculum Implementation Division (CID) will conduct a **Division Virtual Training-Workshop on Mathematical Investigations and Modelling (MIM)** on January 17-22, 2022, via Google Meet.
2. This activity aims to:
  - a. capacitate teachers on the processes and steps of Mathematical Investigations and Modelling;
  - b. generate samples of MIM;
  - c. create a community of practice to institutionalize the use of MIM as an approach in developing the critical thinking skills of our learners.
3. The expected participants to this activity are the PSDSs and secondary school teachers (either in JHS or SHS). There will be 2 participants from each secondary school in the Division of Negros Oriental with background on research and statistics and ICT skills. District Supervisors are requested to select and recommend participants to this activity.
4. Participants shall register to [https://bit.ly/registration\\_MIM](https://bit.ly/registration_MIM) not later than January 4, 2022. Participants are advised to stay in a safe place with strict observance of health protocol against COVID-19 and with stable internet connectivity.
5. For the clustering, Program Schedule Matrix and schedule of face-to-face Pre-Planning Conference of Division Training Team, please see Enclosures.
6. Travelling and other incidental expenses incurred by the Division Training Team shall be charged against school MOOE/other local funds subject to usual accounting and auditing rules.
7. Service rendered on a Saturday entitles one to receive service credit for the teaching personnel and compensatory overtime credit for the non-teaching personnel.
8. Immediate dissemination and compliance with this memorandum is directed.

  
**SENEN PRISCILLO P. PAULIN, CESO V**  
Schools Division Superintendent

12/20/2021

## ENCLOSURES

### A. CLUSTER WITH THE DESIGNATED FACILITATOR

| CLUSTER FACILITATORS |                        |                   |                    |
|----------------------|------------------------|-------------------|--------------------|
| Cluster 1            | Cluster 2              | Cluster 3         | Cluster 4          |
| GIC G. DECIAR        | TEODULO E. DAVE<br>JR. | REYMAR D. LUNARES | RICHARD D. CATUBAY |

|    | CLUSTER 1     | No. of Schools | CLUSTER 2  | No. of Schools | CLUSTER 3      | No. of Schools | CLUSTER 4       | No. of Schools |
|----|---------------|----------------|------------|----------------|----------------|----------------|-----------------|----------------|
| 1  | CANLAON 1     | 4              | MABINAY 1  | 5              | VALENCIA       | 5              | SIATON 1        | 5              |
| 2  | CANLAON 2     | 4              | MABINAY 2  | 4              | BACONG         | 3              | SIATON 2        | 3              |
| 3  | LA LIBERTAD 1 | 1              | MABINAY 3  | 4              | DAUIN          | 7              | SIATON 3        | 4              |
| 4  | LA LIBERTAD 2 | 1              | MABINAY 4  | 2              | ZAMBOANGUITA 1 | 3              | SIATON 4        | 4              |
| 5  | JIMALALUD 1   | 2              | AMLAN      | 4              | ZAMBOANGUITA 2 | 2              | STA. CATALINA 1 | 4              |
| 6  | JIMALALUD 2   | 3              | SAN JOSE   | 4              | SIBULAN 1      | 6              | STA. CATALINA 2 | 4              |
| 7  | TAYASAN 1     | 3              | MANJUYOD 1 | 3              | SIBULAN 2      | 5              | STA. CATALINA 3 | 4              |
| 8  | TAYASAN 2     | 2              | MANJUYOD 2 | 2              |                |                | STA. CATALINA 4 | 3              |
| 9  | AYUNGON 1     | 3              | NOHS       | 1              |                |                |                 |                |
| 10 | AYUNGON 2     | 2              |            |                |                |                |                 |                |
| 11 | BINDOY 1      | 1              |            |                |                |                |                 |                |
| 12 | BINDOY 2      | 2              |            |                |                |                |                 |                |

TOTAL NO. OF SCHOOLS: 28

29

31

31

## B. TRAINING MATRIX

DIVISION VIRTUAL TRAINING-WORKSHOP ON MATHEMATICAL INVESTIGATIONS  
AND MODELLING  
January 17-22, 2022

PROGRAM SCHEDULE MATRIX

| <i>Day</i>             | <i>Time</i>      | <i>Activity</i>  | <i>Topic</i>  |
|------------------------|------------------|--|---|
| Day 1<br>January<br>17 | 8:00-8:30        | Settling in  |   |
|                        | 8:30 -9:30       | Opening Program<br>(Host: Melba S. Tumarong)                               | (Division Training Team)  |
|                        | 9:30 –<br>10:00  |  | Health Break  |
|                        | 10:00 -<br>12:00 | Lecture/Discussion/Open Forum<br><b>Dr. Elisa L Baguio</b>                 | <i>Mathematics Investigation in the K-12 Curriculum</i>   |
|                        | 12:00 –<br>1:00  |  | Lunch   |
|                        | 1:00 – 3:00      | Lecture/Demonstration<br><b>Dr. Melba S. Tumarong</b>                      | <ul style="list-style-type: none"> <li>• <i>Nature and Purpose of Mathematical Investigation</i></li> <li>• <i>Stages in the Conduct of Mathematical Investigation</i></li> <li>• <i>Pattern Finding as a Problem-Solving Strategy and other Requisite Skills in MI</i></li> <li>• <i>Finite Difference Chart and other Alternative Methods/Approaches</i></li> </ul>                 |
|                        | 3:00 – 5:00      | Asynchronous Workshop #1<br>(AW#1)<br>(Break-Away Groups)                  | (The output is by District)   |
| Day 2<br>January<br>18 | 7:30 – 8:00      | MOL – Clusters 1 & 2   | Prayer<br>Checking of Attendance<br>Energizer   |
|                        | 8:00 -8:30       |  | Presentation of AW#1 Output   |
|                        | 8:30 –<br>12:00  | Lecture/Demonstration<br><b>Reymar Lunares</b><br><b>Richard Catubay</b>   | <ul style="list-style-type: none"> <li>• <i>Conjecturing From Data</i></li> <li>• <i>Formulating Conjectures Using Mathematical Notations</i></li> <li>• <i>Conduct of Initial Investigations</i></li> <li>• <i>Methods of Proofs</i></li> <li>• <i>Format in Writing the MI Paper</i></li> <li>• <i>Making Posters in MI</i></li> <li>• <i>How to Assess the MI Paper</i></li> </ul> |
|                        | 12:00 –<br>1:00  |  | Health Break  |
|                        | 1:00 – 5:00      | Asynchronous Workshop # 2<br>(AW#2)<br>(Break-Away Groups)                 | <i>Writing of District MI Paper</i>   |
| Day 3<br>January<br>19 | 8:30 –<br>12:00  | Finalization of Asynchronous<br>Workshop # 2 (AW#2)<br>(Break-Away Groups) |   |
|                        | 12:00 –<br>1:00  |  | Health Break  |
|                        | 1:00 – 5:00      | Presentation of Asynchronous<br>Workshop # 2 (AW#2)<br>(Break-Away Groups) | <i>Selection of Cluster representative for MI to the Math Congress</i>  |
| Day 4                  | 7:30 – 8:00      | MOL – Clusters 3 & 4   | Prayer<br>Checking of Attendance  |

|                        |                 |  |  |
|------------------------|-----------------|--|--|
| January<br>20          |                 |  | Energizer  |
|                        | 8:30 –<br>12:00 | Lecture/Demonstration<br><b>Gic Deciar</b><br><b>Teodulo Dave</b>  | <ul style="list-style-type: none"> <li>• <i>The Whys, Whats, and Hows of Mathematical Modeling</i></li> <li>• <i>Initial Mathematical Modeling Activity</i></li> <li>• <i>Mathematical Modeling in Research</i></li> <li>• <i>Format in Writing the MM Report</i></li> <li>• <i>Making Posters in MM</i></li> <li>• <i>How to Assess the MM Paper</i></li> </ul> |
|                        | 12:00 –<br>1:00 | Health Break   |  |
|                        | 1:00 – 5:00     | Asynchronous Workshop # 3<br>(AW#3)<br>(Break-Away Groups)   | <i>Writing of District MM Paper</i>  |
| Day 5<br>January<br>21 | 8:30 –<br>12:00 | Finalization of Asynchronous<br>Workshop # 3 (AW#3)<br>(Break-Away Groups)                                     |  |
|                        | 12:00 –<br>1:00 | Health Break   |  |
|                        | 1:00 – 5:00     | Presentation of Asynchronous<br>Workshop # 3 (AW#3)<br>(Break-Away Groups)                                     | <i>Selection of Cluster representative for MM to<br/>the Math Congress</i>   |
|                        | 5:00 – 6:00     | Submission of MI and MM<br>Outputs <ul style="list-style-type: none"> <li>• Paper</li> <li>• Poster</li> </ul> | <i>By cluster</i>  |
| Day 6<br>January<br>22 | 8:00 – 9:00     | Preparation for Math Congress  |  |
|                        | 9:00 –<br>12:00 | Math Congress<br>Part 1: MI  | Oral and Poster Presentation   |
|                        | 12:00 –<br>1:00 | Health Break   |  |
|                        | 1:00 – 4:00     | Math Congress<br>Part 2: MI  | Oral and Poster Presentation   |
|                        | 4:00 – 5:00     | Closing Program  | <i>Awarding of Certificates of Participation and<br/>certificates of Recognition for Best Presenter,<br/>Best and Best Poster for MI and MM<br/>Categories</i>   |

**C. DIVISION TRAINING TEAM – to attend a Pre-Planning Conference on January 7,  
2022 at 9:00 AM at Division Conference Hall**

Richard D. Catubay

Teodulo E. Dave Jr.

Reymar D. Lunares

Gic G. Deciar

Melba S. Tumarong

Elisa L. Baguio