

Republic of the Philippines

Department of Education

Region VI – Western Visayas SCHOOLS DIVISION OF CAPIZ

Division Advisory No. 085, s. 2025

September 15, 2025
In compliance with DepEd Order (DO) No. 8, s. 2013
This advisory is issued not for endorsement per DO 28, s. 2001, but only for the information of DepEd SDO Capiz officials, personnel/staff, as well as the concerned public.

(Visit www.depedcapiz.ph)

Attached is the letter from Klariz Angelique D. Apolinario, Researcher, West Visayas State University, College of Education regarding the conduct of pilot training program on AI + MATH = Teaching: Expanding AI Use and Breaking Barriers in the Classroom on September 27, 2025.

Participation to the activity is voluntary and subject to compliance with DepEd Order No. 012, s.2025 titled Multi-Year Implementing Guidelines on the School Calendar and Activities, DepEd Order No.09, s.2005 titled Instituting Measures to Increase Engaged Time-on-Task and Ensuring Compliance Therewith, DepEd Order No. 008, s. 2023 titled Participation of Teachers in Volunteer Work and Extra Curricular Activities, DepEd Memorandum No. 41, s. 2024 titled Reiteration of the No Collection Policy in Schools and DepEd Order No. 66, s. 2017 titled Implementing Guidelines on the Conduct of Off-Campus Activities. The details and overview of this program are attached for reference.

For more information, please contact:

Klariz Angelique D. Apolinario

Mobile No.: 09196966738





Address: Banica, Roxas City

Contact Number: (036) 6518 456/0968-869-5867

Email Address: capiz@deped.gov.ph
Website: http://depedcapiz.ph



WEST VISAYAS STATE UNIVESITY COLLEGE OF EDUCATION GRADUATE SCHOOL Iloilo City



September 8, 2025

ROEL F. BERMEJO

Schools Division Superintendent Division of Capiz Banica, Roxas City

Dear Sir Bermejo:

Greetings!

I am Klariz Angelique D. Apolinario, a student at West Visayas State University, Iloilo City, pursuing a Doctor of Philosophy in Science Education, major in Mathematics. As part of my dissertation requirements, I previously conducted my research entitled "*Unlocking Mathematics Teachers' AI Awareness, Utilization, and Experiences: A Path to a Smarter Professional Development*"in selected schools within the First Congressional District of the Division of Capiz, for which you graciously granted permission.

Based on the findings of the study, I have developed a **training design** intended to enhance mathematics teachers' competence in integrating Artificial Intelligence (AI) tools in both instructional and non-instructional tasks. In line with this, I respectfully request your approval to conduct a **pilot training program** in the same participating schools on **September 27**, **2025** (**Saturday**) at **Hotel Veronica**, **Roxas City**, **Capiz. All expenses** related to this activity—including venue, training materials, meals, and the participating teachers' transportation/travel allowance—will be fully shouldered by me; no funds from the Division or participating schools will be requested. This pilot aims to test the training design and ensure its effectiveness in addressing teachers' professional development needs.

We assure you that the conduct of this training will be coordinated with the concerned school heads and carried out in adherence to DepEd policies and guidelines. For clarity and streamlined communication, the participating schools are as follows:

- 1. Capiz National High School
- 2. Commissioner Luis R. Asis National High School
- 3. Feliciano Yusay Consing National High School
- 4. Jose Diva Avelino Jr. National High School
- 5. Maayon National High School
- 6. Marciano M. Patricio National High School
- 7. Panitan National High School
- 8. Pontevedra National High School
- 9. Parish School of Saint Isidore
- 10. Sanctus Josefus Inc.
- 11. Elizalde Academy
- 12. Pontevedra Christian School, Inc.

The results of the pilot test will be used solely for academic purposes and to enhance the training framework, to support capacity-building efforts within the division.

We respectfully request the issuance of a Division Advisory to the participating schools for this pilot training.

I have attached the proposed training design, program matrix, and other supporting documents for your review.

I sincerely hope for your kind approval and continued support in this endeavor. Thank you very much for your consideration.

Respectfully yours,

KLARIZ AMGELIQUE D. APOLINARIO

Researcher

Noted by

CHERYL LYN C. DELGADO, PhD

Research Adviser

Approved:

ROEL F. BERMEJO

Schools Division Superintendent

Division of Capiz

Subject to compliance with the masting guidelines

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Proposed Training Design for the Professional Development of Mathematics Teachers

"AI + Math = Smarter Teaching: Expanding AI Use and Breaking Barriers in the Classroom"

Program Title	AI + Math = Smarter Teaching: Expanding AI Use and		
	Breaking Barriers in the Classroom		
Program Description	This training workshop is designed to strengthen the capacity of mathematics teachers to expand their use of artificial intelligence (AI) tools in their instructional practice. It aims to equip teachers with the knowledge, skills, and strategies needed to effectively utilize AI in designing lessons, developing assessments, and enhancing student engagement.		
	The workshop also addresses concerns with the use of AI, support teachers in creating action plans tailored to specific classroom contexts and implement and evaluate the impact of AI integration on student learning.		
	Through hands-on activities, practical strategies, and collaborative learning, participants will explore how AI can enhance both teaching and support tasks to ensure the success of the teaching and learning process.		
	The training workshop will be delivered in multiple parts, beginning with skills development and reflection, and extending toward classroom implementation and impact evaluation.		
	Part 1 – Building AI Skills for Mathematics Education (2 Full Days, Consecutive) This part provides a foundational understanding of artificial intelligence and its direct relevance to mathematics teaching and learning. Participants will explore practical AI tools and applications for lesson design, assessment, and teacher productivity. Through hands-on activities, they will learn to craft effective, context-specific prompts for generating engaging lesson plans, lesson activities, and assessments. The session also includes a critical examination of ethical concerns—such as data privacy, academic		

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integrity, and overreliance—to ensure responsible and informed classroom use.

Part 2 – Reflecting and Planning for Responsible AI Integration (1/2 Day, Conducted 1–2 Weeks After Part 1)

This part will be conducted through a Learning Action Cell (LAC) to encourage collaborative reflection and peer learning. Teachers will reflect on the effectiveness, challenges, and strategies in using AI tools in their instructional practice. The session emphasizes collaborative sharing of experiences and co-creation of solutions to common barriers such as access to technology and connectivity.

By the end, participants will develop a concrete action plan that promotes responsible, ethical, and sustainable use of AI in mathematics education tailored to their classroom contexts.

Part 3 – Classroom Implementation and Impact Evaluation (1/2 Day, Conducted 1–2 Months After Part 2)

This part will sustain the training by moving from planning to practice. Teachers will implement AI-integrated lesson plans and activities in their classrooms, then document evidence of student engagement, participation, and performance. The session will provide teachers space to evaluate the impact of AI-supported instruction on students' understanding and transfer of learning. Findings will be shared through their school-based learning action cells (LACs), to build a collective knowledge base for improving AI integration in mathematics education.

Duration

The proposed training design will be delivered in **three (3) parts** across three training days, spread over several weeks, to ensure that the training is not only for the development of the knowledge and skills, but also reflection, action planning, and classroom based evaluation of AI integration and its effect on student learning.

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Management Level of	Division Level	
Program	WVSU Graduate School Student-led Training Workshop	
Delivery Mode	Lecture/Participative Discussions, Workshop	
II. Target and Total Number of Participants	Proficient Junior High School Teachers (Teacher I-III) Teaching Mathematics in the Schools Division of Capiz Two (2) teacher participants for each of the following schools below: 1. Capiz NHS 2. Commissioner Luis R. Asis NHS 3. Feliciano Yusay Consing NHS 4. Jose Diva Avelino Jr. NHS 5. Maayon NHS 6. Marciano M. Patricio NHS 7. Panitan NHS 8. Pontevedra NHS One (1) teacher from each non-public schools listed below: Private Schools 1. Parish School of Saint Isidore 2. Sanctus Josefus Inc 3. Elizalde Academy	
	Overall Participants: 20 teacher-participants	
III. Target Date and	September 26 – 27, 2025	
Venue	Hotel Veronica	
IV. Materials	Sound System, Microphones, Extension cords, Smartphones,	
	Laptop, and LCD Projector and Wide Screen, Internet Connectivity,	
	Tarpaulin (backdrop)	
V. Budget Requirements	30 Pax x ₱600 x 2 days (Meals and Venue) = ₱36,000.00	
	Speaker Honoraria₱7,500.00	
	Certificates₱1,000.00	
	Training Kits & Tarpaulin ₱1,500	

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	Accommodation of Speakers (1 night) ₱10,000
	Other Expenses₱3,000.00
	TOTAL₱59,000.00
VI. Source of Fund	Private Donation
	n-til

Rationale

The evolution of society demands continuous adaptation in education, which must remain responsive to changing needs. One of the significant drivers of this evolution includes the advancement of technology, particularly artificial intelligence (AI). AI has rapidly spread across many sectors making it essential in our daily lives. Its growing in education highlights its transformative potential in the teaching and learning process.

In mathematics education, several AI-powered tools have emerged to help teachers and students.

Santos (2024) emphasized that AI has reshaped students' approach and understanding of

Mathematics, making it more engaging especially to those who struggled traditionally. This

positive response positions AI as an

invaluable tool for students seeking to improve their mathematical skills.

However, despite students' positive reception of AI and its potential to enhance education, significant gaps remain in teacher adoption of AI tools. Many teachers hesitate to use AI due to a lack of understanding, data privacy concerns, fears of cheating, and worries about worsening inequalities (Langreo, 2024; Shaide & Shabir, 2024). Chounta et al. (2022) further noted that limited teacher knowledge constrains the full utilization of AI, highlighting the pressing need for professional development and institutional support.

As AI use grows particularly among tech-savvy Generation Z and Alpha learners, teachers in the Department of Education (DepEd) need to strengthen their capacity to adapt. This requires not only familiarity with the emerging tools but also the pedagogical skills to embed these tools meaningfully into instructional practices and other support tasks.

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In response to this need, DepEd highlighted the critical role of AI in advancing Philippine Education. As Undersecretary and Chief of Staff, Atty. Fatima Lipp Panontongan, emphasized, "AI is a tool for empowerment and not replacement". Furthermore, through the initiative of Secretary Angara, the department launched the "Education Center for AI Research (E-CAIR)" to advance Philippine education through AI-driven solutions aligned with DepEd's 5-point reform agenda (Department of Education [DepEd], 2025).

In line with this, this proposed training workshop seeks to strengthen mathematics teachers' Technological, Pedagogical, and Content Knowledge (TPACK) by equipping them with the necessary skills aligned with DepEd's call for responsible and ethical AI integration. The training workshop will focus on how AI tools can support mathematics instruction and simplify teachers' routine tasks, helping them enhance their effectiveness and efficiency.

Objectives

The three-part spaced workshop training will enable participants to:

Part 1 (2 Full Days, Consecutive)

- Develop effective AI prompts to design engaging and inclusive mathematics lesson plans, learning activities, and assessments. Demonstrate proficiency in using AI for simplifying routine teaching tasks such as checking outputs, generating assessment items, and providing immediate feedback.
- Identify and describe at least three (3) AI tools and applications relevant to Mathematics education that support both teaching and teacher productivity.
- Analyze the strengths, limitations, and potential risks
 of using AI tools in mathematics education, with
 particular attention to ethical concerns including data
 privacy, and equity, and academic integrity.
- Design and present an original AI-generated lesson plan or assessment aligned with the current curriculum that demonstrate responsible and ethical classroom integration.

Part 2 and Part 3 (School Level Training Workshop)

Part 2 (1/2 Day, Conducted 1-2 Weeks After Part 1)

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1. **Reflect** on the effectiveness, challenges, and strategies in integrating AI into the teaching and learning process. 2. **Develop** a concrete action plan that promotes the responsible, ethical, and sustainable use of AI in education. Part 3 (1/2 Day, Conducted 1-2 Months After Part 2) 1. **Implement** AI-integrated lesson plans and activities in the classroom. 2. **Gather evidence** of student learning and engagement. 3. **Evaluate and share** the impact of AI integration on student outcomes. Sample Mathematics Daily Lesson Log Integrating AI, AI-enhanced **End of the Program** Assessments, AI tool Summary Sheet, Classroom Level AI Policy, **Outputs** Reflections or Return Demonstration 1. Increase awareness and understanding of appropriate AI **Expected Final Outcomes** applications for mathematics education. 2. Show confidence in utilizing appropriate AI tools for instructional and non-instructional purposes. 3. Contribute to a more engaging and innovative mathematics classroom that meets the demands of 21st-century learners.

II. Training Committee	
Overall Chairman	Education Program Supervisor in
	Mathematics
Resource Speaker	Professor (AI expert)
	Professor (AI expert)
Facilitator	1 DepEd Teacher
Registration and Attendance	1 DepEd Teacher
Program and Certificates	1 DepEd Teacher
Documentation	1 DepEd Teacher
Materials/ Supplies/ Snacks	1 DepEd Teacher
Audio and Video Equipment	1 DepEd Teacher
Venue and Preparation	1 DepEd Teacher
Quality Assurance Monitoring and	1 DepEd Teacher
Evaluation	
Emcee	1 DepEd Teacher

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Monitoring and Evaluation

Monitoring and evaluation of the training workshop will be conducted after the completion of the program to determine the attainment of objectives and assess the overall effectiveness. The Quality Assurance, Monitoring, and Evaluation (QAME) Committee will oversee the process. A Post-Training Evaluation Form will be administered to all participants to gather feedback on the content, delivery, and outcomes of the sessions. Following this, the committee will prepare a narrative report with photo documentation to be submitted to the Schools Division Office of Capiz as a mode of verification and accountability.

IV. PROGRAM CONTENT FOCUS Part 1: Building AI Skills for Mathematics Education Duration Specific Suggested **Expected** Resource **Topic** objectives **Activity** output Speaker Session 1: Develop Seminar-1.5 hours Sample AIeffective AI Workshop generated Prompt Engineering lesson plan, prompts to design and Dr. Sybel F. Labis engaging and assessment inclusive mathematics lesson plans, learning activities, and assessments. Session 2: Identify and 1 hour AI tool Lecture Introduction of AI describe at Summary Discussion least three (3) Sheet tools for AI tools and **Mathematics** applications Teachers relevant to **Mathematics** education that support both teaching and teacher productivity.

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1 hour Classroom Analyze the Lecture Session 3: Level AI Reflecting on strengths, Discussion **Policy** limitations, and Ethical and potential risks Drafting Responsible use of AI in education of using AI tools in mathematics education, with particular attention to ethical concerns including data privacy, and equity, and academic integrity 1.5 hours Session 4: Design and Seminar-Design and Workshop present an Designing of AIpresent an enhanced original AIoriginal AIenhanced generated **Mathematics** lesson plan or Lesson Plan Lesson and **Assessment** assessment or aligned with **Assessments** aligned with Ethical and the current Curriculum curriculum that Alignment demonstrate responsible and ethical classroom integration

Part 2: Reflecting and Planning for Responsible AI Integration

Topic	Specific objectives	Suggested Activity	Duration	Expected output	Resource Speaker
Reflective Practice and Action Planning	1) Reflect on the effectiveness, challenges, and strategies in integrating AI into the teaching and learning process.	Lecture Discussion	2 hours	School-Level Action Plan	School LAC Leader

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	2) Develop a concrete action plan that promotes the responsible, ethical, and sustainable use of AI in education.				
Part 3: Classroom	n Implementation a	ind Impact E	valuation	E A	4
Topic	Specific objectives	Suggested Activity	Duration	Expected output	Resource Speaker
Classroom Implementation Sharing and Impact Evaluation	1. Implement AI-integrated lesson plans and activities in the classroom. 2. Gather evidence of student learning and engagement. 3. Evaluate and share the impact of AI integration on student outcomes.	Sharing	2 hours	Mini-portfolio with MOVs	Classroom Teachers

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AI + Math = Smarter Teaching: Expanding AI Use and Breaking Barriers in the Classroom

V. Training Matrix	<	
Part 1		
Time	Day 1	Day 2
	ACTIVITIES/TOPICS	ACTIVITIES/TOPICS
7:30 - 8:30	Registration	Management of Learning/Energizer
8:30 - 9:00	Opening Program	Session 4:
9:00 - 11:00	Session 1: Prompt Engineering	Designing of AI-enhanced Mathematics Lesson and Assessment with Ethical and Curriculum Alignment
11:00 - 11:15	Snack Break	Snack Break
11:15 – 12:00	Session 2: Introduction of AI tools for Mathematics Teachers	Session 4 (cont'd): Presentation of AI-enhanced Mathematics Lesson and Assessment with Ethical and Curriculum Alignment
12:00 - 1:00	Lunch Break	Lunch Break
1:00- 2:00	Session 3: Reflecting on Ethical and Responsible use of AI in education	Closing Program Giving of Certificates/Tokens
2:00 - 2:15	Snack Break	
2:15 - 3:45	Workshop/Application of Activities	
3:45 – 4:30	Group Sharing and Output Consolidation	
4:00 - 5:00	Day 1 Wrap-up/Reflections	

Part 2 (School Level – LAC)			
Time	ACTIVITIES/TOPICS		
8:00 - 8:30	Opening Program		
8:30 - 10:30	Session: Reflective Practice and Action Planning		
10:30 - 11:30	Closing Program/Giving of Certificates/Tokens		
Part 3 (School Level = LAC)			
8:00 - 8:30	Opening Program		
8:30 - 10:30	Session: Classroom Implementation Sharing and Impact Evaluation		
10:30 - 11:30	Closing Program/Giving of Certificates/Tokens		

Prepared by: **Klariz Angelique Apolinario-Ibañez**Proponent

Summary of the Problem, Method, and Findings

This study examined **mathematics teachers' awareness, utilization, and experiences** with artificial intelligence (AI) tools for instructional and non-instructional purposes. The results served as the basis for developing a **training design** to enhance teachers' professional development in using AI tools.

Respondents:

Eighty-two (82) Junior High School Mathematics teachers from selected public and private schools in the First Congressional District of Capiz. Seven teachers also participated in semi-structured interviews for deeper insights.

Method:

- **Quantitative:** Mathematics Teachers' AI Awareness, Utilization, and Experiences Questionnaire (via Google Forms), analyzed using SPSS.
- **Qualitative:** Semi-structured interviews (Zoom and written), analyzed through thematic analysis.

Key Findings:

1. Most Common AI Tools Used

- Instructional: ChatGPT, Canva for Education (AI features), AI-powered Calculators
- o Non-instructional: ChatGPT, Canva for Education, Grammarly

2. Level of Awareness

- High for instructional AI tools
- o Moderate for non-instructional AI tools

3. Level of Utilization

- o High for both instructional and non-instructional uses
- 4. **Teachers' Experiences** (Themes)
 - 1. AI as a Practical Teaching Aid
 - 2. AI in Streamlining Non-Instructional Tasks
 - 3. Efficiency and Engagement through AI
 - 4. Barriers, Risks, and Ethical Concerns of AI Use, and
 - 5. Need for AI Training and Resources
 - Lack of formal training
 - Call for a systematic, hands-on, and collaborative workshop.
 - Desired content includes the basics of AI, ethical and responsible use, subject-specific applications in math, differentiated activities, and assessment design.