



2511-2306

Republic of the Philippines  
**Department of Education**  
REGION I  
SCHOOLS DIVISION OF VIGAN CITY

**Office of the Schools Division Superintendent**

**DIVISION MEMORANDUM**

No. 928, s.2025

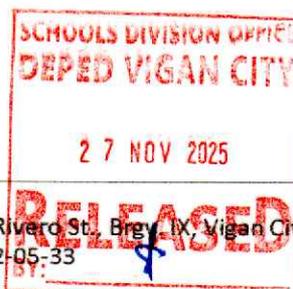
**ENDORSEMENT OF THE SURVEY FOR THE STUDY "DEVELOPMENT AND VALIDATION OF SCALE FOR ASSESSING EFFECTIVE MATHEMATICS INSTRUCTIONAL PRACTICES IN PHILIPPINE BASIC EDUCATION"**

To: Assistant Schools Division Superintendent  
Chief Education Supervisors  
Public Elementary and Secondary School Heads  
All Others Concerned

1. In reference to **Regional Memorandum No. 1620, s. 2025**, the Department of Education- Central Office, through the Office of the Director of the Policy and Planning Service issued **Memorandum 2025-PPS-OD-11-019**, dated November 12, 2025, on the endorsement for the study of a faculty researcher from Isabela State University.
2. The study aims to gather critical insights into teaching strategies and instructional approaches commonly employed by Mathematics teachers in actual classroom settings from Elementary Level to Senior High School Level.
3. In this regard, this Office is requesting the participation of all **Mathematics teachers** at the Elementary, Junior High School, and Senior High School Levels to accomplish the online survey link which can be accessed thru <https://bit.ly/41d1CTO>.
4. Participation of teachers shall be on voluntary basis and in accordance with the provisions indicated in DepEd Order No. 9, s. 2025 titled "*Instituting Measures to Increase Engaged Time-on-Task and Ensuring Compliance Therewith*", Republic Act No. 10173 or the "*Data Privacy Act of 2012*" and the ethical research standards.
5. For inquiries and/or feedback, kindly contact **Mr. Randy P. Acoba** of Isabela State University through email address at [randy.p.acoba@isu.edu.ph](mailto:randy.p.acoba@isu.edu.ph) and/or call **(078) 258 2461**.
6. For information and participation.

**VILMA D. EDA, CESO V**  
Schools Division Superintendent

Encl: Regional Memorandum No. 1620, s. 2025  
Memorandum 2025-PPS-OD-11-019  
Reference: As stated  
To be indicated in the Perpetual Index under the following subject:  
SURVEY MATHEMATICS EDUCATION ISU  
SGOD/Research/aff/DM\_ISUSurvey  
November 26, 2025



📍 Mena Crisologo St. corner Rivera St., Brgy. IX, Vigan City, Ilocos Sur  
☎ (077) 722-20-23 / (077) 632-05-33  
✉ [vigan.city@deped.gov.ph](mailto:vigan.city@deped.gov.ph)  
🌐 [www.depedviganacity.com](http://www.depedviganacity.com)



Republic of the Philippines  
**Department of Education**  
 REGION I



**REGIONAL MEMORANDUM**  
 No. 11620 s. 2025

2511-2306 *EASS*

**ENDORSEMENT OF THE SURVEY FOR THE STUDY "DEVELOPMENT AND VALIDATION OF SCALE FOR ASSESSING EFFECTIVE MATHEMATICS INSTRUCTIONAL PRACTICES IN PHILIPPINE BASIC EDUCATION"**

To: Schools Division Superintendents

1. The Department of Education- Central Office, through the Office of the Director of the Policy and Planning Service issued Memorandum 2025-PPS-OD-11-019, dated November 12, 2025, on the endorsement for the study of a faculty researcher from Isabela State University.
2. The study aims to gather critical insights into teaching strategies and instructional approaches commonly employed by Mathematics teachers in actual classroom settings from Elementary Level to Senior High School Level.
3. In this regard, this Office is requesting the dissemination and accomplishment of the online survey link which can be accessed thru [bit.ly/4ld1CTO](https://bit.ly/4ld1CTO) to all Mathematics teachers at the Elementary, Junior High School, and Senior High School Levels. Participation in the research is voluntary.
4. For inquiries and/or feedback, kindly contact Mr. Randy P. Acoba of Isabela State University through email address at [randy.p.acoba@isu.edu.ph](mailto:randy.p.acoba@isu.edu.ph) and/or call (078) 258 2461.
5. For consideration and appropriate action.

**TOLENTINO G. AQUINO**  
 Director IV

Encl: Memorandum 2025-PPS-OD-11-019

Reference: none

To be indicated in the Perpetual Index under the following subjects:

Survey                      Mathematics Education                      ISU

PPRD/steph/RM\_ISUSurvey  
 November 25, 2025



Doc. Ref. Code	RM-ORD	Rev	00
Effectivity	11.18.2024	Page	1 of 1





Republic of the Philippines  
**Department of Education**

POLICY AND PLANNING SERVICE



**MEMORANDUM**  
 2025-PPS-OD-11-019

FOR : **REGIONAL DIRECTORS**

FROM : *Maria Clarisse T. Ligunas-Roque*  
**MARIA CLARISSE T. LIGUNAS-ROQUE**  
 Director IV, Policy and Planning Service

SUBJECT : **Endorsement of the Survey for the Study "Development and Validation of Scale for Assessing Effective Mathematics Instructional Practices in Philippine Basic Education"**

DATE : 12 November 2025

This refers to the request of Mr. **Randy P. Acoba**, faculty researcher, **Isabela State University**, conducting a study on the development of an assessment tool to evaluate the mathematics teaching practices of mathematics teachers in the Basic Education across the country. The study aims to gather critical insights into the teaching strategies and instructional approaches commonly employed by Mathematics teachers in actual classroom settings from Elementary Level to Senior High School Level.

To establish the tool's construct validity and reliability, the researcher seeks the participation of Mathematics teachers nationwide in an online survey. A large sample will be targeted to ensure robust parameter estimates and enhance the generalizability of the scale. As such, the study aims to include as many respondents as possible. The findings are expected to inform policy development, curriculum design, and teacher professional development programs toward improving the quality of mathematics education in the Philippines.

In this regard, this Office respectfully **endorses the deployment of the survey to all Mathematics teachers at the Elementary, Junior High School, and Senior High School levels** in consideration of existing DepEd Orders, such as DO 9, s. 2005 (*Instituting Measures to Increase Engaged Time-on-Task and Ensuring Compliance Therewith*), to minimize class disruptions and maximize time-on-task for learners and teachers. Likewise, participation is voluntary, and the rights and privacy of all respondents will be fully protected in accordance with ethical research standards.

Attached is the Survey questionnaire, along with the brief description of the study. The survey questionnaire can also be accessed through the link or the QR code provided below:



Room A-205, 2<sup>nd</sup> Floor Alonzo Building, DepEd Complex, Meralco Ave., Pasig City 1600  
 Telephone Nos.: (02) 8687-2744  
 Email Address: ps.od@deped.gov.ph | Website: www.deped.gov.ph

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Effectivity	09.10.24	Page	1 of 2



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For feedback, comments, and suggestions, please contact the DepEd Division Office - Marikina City through e-mail address [es-ops@deped.gov.ph](mailto:es-ops@deped.gov.ph) or through the contact number 8837-8876. For lateral transfer, contact Mr. **Randy P. Acoba**, at [randy.acoba@deped.gov.ph](mailto:randy.acoba@deped.gov.ph).

For further information, please contact the DepEd Division Office - Marikina City at [8837-8876](tel:8837-8876).

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**Development and Validation of Scale for Assessing Effective Mathematics Instructional Practices in the Philippine Basic Education**

Randy P. Acoba  
Cebu Normal University

**Rationale**

Mathematics plays a critical role in the development of logical reasoning, problem solving, and critical thinking skills. In fact, the MATATAG Agenda of the Department of Education (DepEd) Philippines emphasized strengthening foundational skills, including mathematics, to prepare students for higher learning and real-life challenges. This implies that the learners are expected to acquire the foundational skills in mathematics concepts and use them in academic, professional, and real-life contexts. In a broader perspective, the MATATAG curriculum prepares the learners to become capable, independent, and globally competitive individuals.

However, mathematics education is still perceived as a challenging subject for many learners. For them, mathematics is a difficult and abstract subject that requires a lot of memorization and rote learning. This perception is reflected in the TIMSS 2023 results, which revealed that the Philippines ranked the lowest among the 58 countries in mathematics performance. These results raise pressing questions about the effectiveness of current instructional practices and the systemic issues that affect mathematics learning in the Philippines.

One of the main reasons for this low performance is the negative perception of mathematics among students and teachers. This perception is often based on their own experiences of failure and frustration in learning mathematics. In addition, the current curriculum and instructional practices may not be engaging and meaningful for learners. This lack of interest and motivation leads to a low rate of achievement in mathematics. Therefore, it is essential to assess the effectiveness of current instructional practices and identify the factors that affect mathematics learning in the Philippines. This study aims to develop and validate a scale for assessing effective mathematics instructional practices in the Philippine basic education. The study will explore the perceptions of teachers and students about mathematics learning and teaching, and identify the factors that affect mathematics learning in the Philippines. The study will also assess the effectiveness of current instructional practices and identify the factors that affect mathematics learning in the Philippines. The study will contribute to the development of a more effective and engaging mathematics curriculum and instructional practices in the Philippines.

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One of the main reasons for this low performance is the negative perception of mathematics among students and teachers. This perception is often based on their own experiences of failure and frustration in learning mathematics. In addition, the current curriculum and instructional practices may not be engaging and meaningful for learners. This lack of interest and motivation leads to a low rate of achievement in mathematics. Therefore, it is essential to assess the effectiveness of current instructional practices and identify the factors that affect mathematics learning in the Philippines. This study aims to develop and validate a scale for assessing effective mathematics instructional practices in the Philippine basic education. The study will explore the perceptions of teachers and students about mathematics learning and teaching, and identify the factors that affect mathematics learning in the Philippines. The study will also assess the effectiveness of current instructional practices and identify the factors that affect mathematics learning in the Philippines. The study will contribute to the development of a more effective and engaging mathematics curriculum and instructional practices in the Philippines.

It is essential to understand what the learners already know and what they need to learn in order to provide challenges and support to help them succeed. The National Council of Teachers of Mathematics (NCTM) emphasizes that effective mathematics instruction requires knowing and understanding the learners' prior knowledge and pedagogical strategies. Also, the MATATAG curriculum framework for mathematically rich performance in mathematics remains low as evidenced by the results of the Programme for International Student Assessment (PISA) and the International Mathematics and Science Study (IMSS) in the Philippines among the lowest-performing countries in the world. The Philippines ranked the lowest among the 58 countries in mathematics performance (TIMSS, 2023). These results raise pressing questions about the effectiveness of current instructional practices and the systemic issues that affect mathematics learning in the Philippines.

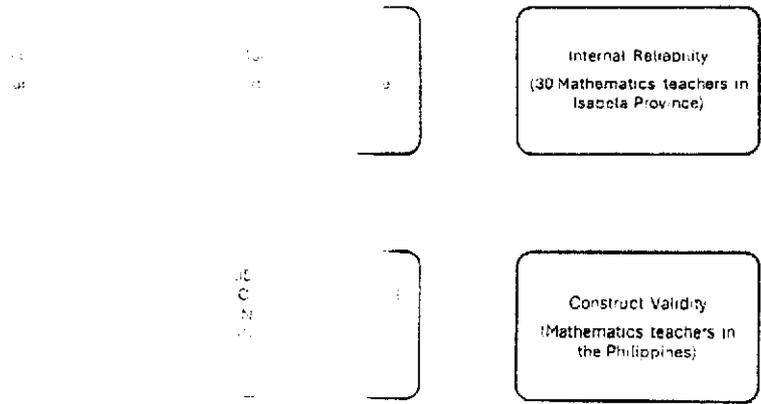
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b. The instrument was revised by experts from the Philippine Normal University based on the comments of these experts. The instrument was pilot tested to thirty (30) mathematics teachers in Isabela Province to test its reliability. A Cronbach's alpha of 0.88 was obtained, indicating that the instrument is highly consistent.

c. The process of validation is the establishment of its construct validity to a wider population. In this study, the instrument was tested across elementary, junior high school, and senior high school and private schools in the Philippines.

The process involved in developing and validating Instructional Practices in the Philippine Basic Education Curriculum Framework for Mathematics is as follows:



**Data Analysis**

The data were analyzed using JAMOVI, an open source software. The analysis included Bartlett's Tests, and Kaiser-Meyer-Olkin (KMO) to assess the suitability of the data for factor analysis. Using Chi-Square Goodness of Fit, and Standard Root Mean Square Multiple Correlation, the items will be inspected to evaluate their reliability. Hair et al. (1998) suggested that items with a loading of 0.5 or higher are considered reliable.

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Effective Instruction in the Philippine Basic Education

**Development and Validation of Scales for Assessing Effective Mathematics Instructional Practices in the Philippine Basic Education**

			Not relevant	Somewhat Relevant	Quite Relevant	Highly relevant
A.	Mathematics					
1.	Instructional practices	basic				
2.	Instructional practices					
3.	Instructional practices					
4.	Instructional practices	basic				
5.	Instructional practices					
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