2023 Early Language, Literacy, And Numeracy Assessment (ELLNA)
Rebid of Lot No. 2

Priority A

a.1. Master List of examinees by schools, individual raw score, mean raw score, mean percentage score.

a.2. Electronic file of Master List by Division. If the mode of administration is through census, the legislative district's Masterlist is also required.

a.3. School Header's data – crosstabs with frequency counts and percent, MPS by variable, by legislative district

a.4. Quartile Distribution by School, Division and Region. If the mode of administration is through *census* the legislative district's Masterlist is also required.

a.5. Mastery levels by schools, divisions, and regions for English, Filipino, Numeracy, and the 19 mother tongue samples. If the mode of administration is through *census* the legislative district's Masterlist is also required.

Priority B

B.1. Frequency and percent distribution of total examinees.

b.1.1. Region per English, Filipino, Filipino Numeracy, and 19 Mother Tongue & Mother Tongue Numeracy.

b.1.2. Division per English, Filipino, Filipino Numeracy, and 19 Mother Tongue & Mother Tongue Numeracy

b.1.3. National per English, Filipino, Filipino Numeracy, and 19 Mother Tongue & Mother Tongue Numeracy

b.1.4. Proficiency levels by subject area by Division, Region, and National.

B.2. Frequency, percentage distribution, Mean, SD, and MPS of demographic characteristics for English, Filipino, Filipino Numeracy, and the 19 mother tongue samples and Mother Tongue Numeracy.

b.2.1. Gender (National, Regional, Division)

b.2.2. Municipality type (Rural, Urban)

b.2.3. Class Size

b.2.4. School Type

b.2.5. Legislative District

b.2.6. 4P's

b.2.7. School Type (Public vs. Private)

b.2.8. Teacher given grades by subject.

b.2.9. EDQ Variables

b.2.10. School Header variables

b.2.11. IP

b.2.12. Type of School: Central/Pilot Elementary School, Non Central, Private School, Multigrade School, State College/University.

B.3. Regional and Division-Level Analysis

b.3.1. Do the same as the foregoing for each of the Seventeen (17) Regions Examples (Sample Table) Regional N, Mean, Raw % Score, SD, Lowest, and Highest for each of the 5-subject areas (English, Filipino, Numeracy, and the 19 mother tongue samples) and the overall subtest rating.

b.3.2. Division N, Mean (Raw and Percent) Scores, SD, Lowest and Highest scores for each of the 5-subject areas (English, Filipino, Filipino Numeracy, and the 19-

Mother Tongue and Mother Tongue Numeracy samples) and its overall subtest rating.

b.3.3. Mean, N, SD, by (English, Filipino, Filipino Numeracy, and the 19-mother tongue and Mother Tongue samples) and overall test by SCHOOL, DIVISION, and REGION Cluster.

Descriptive Statistics for Total and Subtests by Cluster

School Cluster	N	MPS
Cluster 1		
Cluster 2		
Cluster 3		
Cluster 4		
Cluster 5		
Cluster 6		

Schools Scale:

Cluster	Schools with examinees of:
Cluster 1	**400 and above**
Cluster 2	**200 to 399**
Cluster 3	**100 - 199**
Cluster 4	**55 - 99**
Cluster 5	**20 - 54**
Cluster 6	**19 and below**

Division Scale:

Cluster	Divisions with examinees of:
Cluster 1	**10,001 and above**
Cluster 2	**5,001 to 10,000**
Cluster 3	**5,000 and below**

Regional Scale:

Cluster	Regions with examinees of:
Cluster 1	**100,001 and above**
Cluster 2	**75,000 to 100,000**
Cluster 3	**74,999 and below**

B.4. Three-Year Trend using MPS by Subtest

b.4.1. Individual score represented by the highest and lowest Raw Score by subject area and Overall Test

b.4.2. Three Year trends using subtest starting School Year 2016 - 2017.

B.5. Proficiency Levels

b.5.1. Frequency and Percentage **Distribution of Examinees** and School type based on the Criteria on **Proficiency Levels** by subtest for English, Filipino, Filipino Numeracy, Mother Tongue, and Mother Tongue Numeracy.

b.5.2. Proficiency Level by **Demographic Variables** including Examinee's Descriptive Questionnaire by subject areas (English, Filipino, Filipino Numeracy, Mother Tongue and Mother Tongue Numeracy)

b.5.3. Proficiency level by **school, division, region, and dialect** by 5 subject areas (English, Filipino, Filipino Numeracy, Mother Tongue, and Mother Tongue Numeracy) and the overall test.

CRITERIA FOR PROFICIENCY LEVELS

PROFICIENCY LEVEL	
MPS	**Descriptive Equivalent**
90 – 100	*Highly Proficient*
75 - 89	*Proficient*
50 - 74	*Nearly Proficient*
25 - 49	*Low Proficient*
0 - 24	*Not Proficient*

B.6. Raw Scores and Mean Percentage Scores

b.6.1. Regional Performance MPS by English, Filipino, Filipino Numeracy, Mother Tongue, and Mother Tongue Numeracy and Overall Test

b.6.2. Division Performance MPS by English, Filipino, Filipino Numeracy, Mother Tongue, and Mother Tongue Numeracy and Overall Test

b.6.3. Frequency and Percentage Distribution of scores based on the criteria on quartile distribution by:

   b.6.3.1. English, Filipino, Filipino Numeracy, Mother Tongue, and Mother Tongue Numeracy and overall test.
   b.6.3.2. distribution of examines
   b.6.3.3. distribution of school
   b.6.3.4. distribution of division
   b.6.3.5. distribution of region

Quartile Distribution of Scores	
Quartile	**Descriptive Equivalent**
76 – 100	*Q1 Superior*
51 – 75	*Q2 Upper Average*
26 – 50	*Q3 Lower Average*
0 – 25	*Q4 Poor*

B.7. Ranking based on Z-scores or percentile rank scores via English, Filipino, Filipino Numeracy, Mother Tongue, and Mother Tongue Numeracy.

1.1 Regional
1.2 Division with each Region
1.3 Top 10 students by subtest based on $\sum$ of Scores of each student in the 5 subject areas.
1.4 Top 10 divisions in Mean Percentage Score (MPS) by subject area

and Overall Test
1.5   Top 10 students in Percentage/Z Score obtained in Filipino Numeracy
1.6   Top 10 students in Percentage/Z Score obtained in Filipino
1.7   Top 10 students in Percentage/Z Score obtained in English
1.8   Top 10 students in Percentage/Z Score obtained in Mother Tongue Numeracy
1.9   Top 10 students in Percentage/Z Score obtained Mother Tongue Numeracy.
1.10. Top 10 schools based on MPS of English, Filipino, Filipino Numeracy obtained by enrolment size
1.11. Top 10 schools based on MPS of mother tongue, and mother tongue numeracy obtained by enrollment size.

Priority C

c.1. Electronic copy of the Tabular and Graphical Presentation of Percentage of Correct Response (PCR) by proficiency levels vis a vis by English, Filipino, Numeracy, Mother Tongue Numeracy, and Mother Tongue through regional and national performance.
c.2. Percentage of Correct Response (PCR) by Dialect per subject area (English, Filipino, Filipino Numeracy, Mother Tongue and Mother Tongue Numeracy).
c.3. Electronic copies of Institutional Performance profile (IPP) by Division. The IPP contains the English, Filipino, Filipino Numeracy, Mother Tongue, Mother Tongue Numeracy, and overall test (MPS and SD). (Division, Region, and National Performance should appear after the last school of the division)
c.4. Electronic copies of Institutional Performance profile (IPP) by School. The IPP contains the English, Filipino, Filipino Numeracy, Mother Tongue, Mother Tongue Numeracy, and overall test (MPS and SD). (Division, Region, and National Performance should appear after the last school of the division)

Priority D:

D.1. GUIDELINES FOR GENERATING INFERENTIAL STATISTICS

Stage 1 ➜ 10 Regions:

Regions I, III, IV-A, V and NCR – Luzon
Regions VI, NIR and VII – Visayas
Regions X, XII – Mindanao

Stage 2 ➜ Division Level – 4 division per region

Cluster 1 – per region
Cluster 2 – per region
Cluster 3 – per region
Cluster 4 – per region

Stage 3 ➜ School Level

Public ES	Private ES
1 Central/Pilot Elementary School	1 Sectarian
1 Non-Central Elementary School	1 Non Sectarian
1 Primary School	

1 Multi-Grade School	
1 State College/University ES	

Stage 4 → 80 – 100 students per school
  • Male – Female almost equal distribution

Stage 5 → All variables indicated on Priority B.2.

D.2. Comparison and Inferential Statistics per Subject.

D.2.1. T-test of differences on means or ANOVA and Chi-Square by Percentile Grouping

d.2.1.1. Gender

Sample table (for total examinees): t-test of difference of Means of Males vs. Females by subtests (Region I)

Test	Mean Score		Std. Deviation		Diff. between means	t-ratio/ F – ratio	Probability
	Male	Female	Male	Female			
Math							
Science							
English							
Filipino							
Aral. Pan							
Total Test							

CHI–SQUARE BY PERCENTILE GROUPING

Variable Labels	PERCENTILE GROUPING IN MPS								
	20 & below	21-29	30-40	41-50	51-60	61-70	71-80	81-90	91-99

d.2.1.2. Do the same as of # 3.1 for each of the 17 other Regions

d.2.1.3. Do the same for:

d.2.1.3.1. Community type (urban vs. rural) for whole population

d.2.1.3.2. Madrasah vs. Non-Madrasah
d.2.1.3.3. Special Science Classes vs. Non-Special Science Classes

D.3.   Correlation and Regression Analysis

D.3.1. Inter-correlation Analysis by subject test scores.
D.3.2. Correlations between the 5 subtests and total test with some examinee characteristics.

d.3.2.1. Gender
d.3.2.2. Cluster Type
d.3.2.3. School Type
d.3.2.4. Number of Siblings
d.3.2.5. Community Type
d.3.2.6. Teacher-given grades in
  ➢ Math
  ➢ Science
  ➢ English
  ➢ Filipino
  ➢ Aralin Panlipunan

d.3.2.7. Madrasah
d.3.2.8. IP
d.3.2.9. SPED

d.3.3. Split-half reliability coefficient for each of the 5 subtests and Total tests GSA & TVA
d.3.4. Kuder-Richardson alpha Reliability

D.4. One-way ANALYSIS OF VARIANCE OF scores on each of the 5 subtests of ELLNA

d.4.1. Across the 17 regions
d.4.2. Across the 5 cluster types
d.4.3. If F is significant in the one-way ANOVA and D.2 has a significant relationship, do a test or Schiff test of Duncan test on the data to identify significantly different group.

D.5. Test Validation and Development

➢   **Classical Test Theory (CTT)**

D.5.1. Item Analysis and Item Validation Tests

d.5.1.1. Do an item analysis of each of the 5 subtests to produce the following facility:

d.5.1.1.1. Facility/difficulty indices
d.5.1.1.2. Discrimination indices
d.5.1.1.3. Frequency of choosers per option (option analysis)

D.5.2. If possible print out an item analysis matrix like the following for each of the subject tests.

Table ___: Item Analysis Index for subtests

Discrimination Index (DI)

_____

Facility Level (%)	< .00	.01 - .15	.16 – .30	.31 -.45	.46 - .60	>.61 and above	Total No. of Items
81 – 100							
61 – 80							
41 – 60							
21 – 40							
0 – 20							
Total Items							

Where: $F1 = \dfrac{\mu - l}{(U + L)} \times 100\%$ $\qquad\qquad D.I = \dfrac{\mu - l}{U}$

Where: μ – number of examinees among the highest scoring 27% of the ranked Distribution who answered the item correctly

l – number of examinees in the L group who answered the item correctly

U – number of examinees in the top 27% of the test takers

L – number of examinees in the bottom 27% of the test takers

Note: $U = L$
F1 -Facility Index
DI – Discrimination Index

D.5.2. Generate an Item Analysis Report for the Early Language, Literacy, and Numeracy Assessment following the **Classical Test Theory Approach (CTT).**

D.5.3. Generate the R Markdown report following the **Item Response Theory (IRT)** approach, which deals primarily with the following:

- IRT ability measures
- IRT item difficulty
- IRT test reliability
- IRT Item Discrimination
- Parallel ICCs
- WrightMap
- IRT item analysis
- R markdown

Conditions:

- *All data/statistical outputs required by the BEA should also be in an electronic file and submitted to the BEA.*
- *Computed and validated data files of scanned data (including scores of each subtest, division, and region code) should also be submitted to BEA*

- *Any statistical data not indicated herein but emerged as necessary should also be generated.*