REGIONAL MEMORANDUM

To: Schools Division Superintendents

From: ESTELA L. CARINO, EdD., CESO IV
      Director IV/ Regional Director

Date: May 24, 2019

Subject: 2018 NATIONAL ACHIEVEMENT TEST (NAT) 6, 10, & 12 RESULTS AND ANALYSIS

1. The Department of Education Regional Office 02 through the Curriculum and Learning Management Division issues the analysis of the results of the 2018 National Achievement Test (NAT) for Grades 6, 10 and 12 which include general findings and conclusions and recommendations.

2. The 21st Century Skills measured in the 2018 NAT are the Problem Solving (PS), Information Literacy (IL), and Critical Thinking (CT) skills across five (5) subject areas for Grades 6 and 10 such as English, Mathematics, Science, Filipino and Araling Panlipunan and seven (7) subject areas for Grade 12 such as Science, Philosophy, Humanities, Media and Information Literacy, Mathematics, Language and Communication and Social Studies for Grade 12. The 2018 NAT results analysis is a baseline assessment to expound the 21st Century Skills, Performance Profile per learning area and Proficiency Levels of the learners.

3. This Office reiterates that SDOs should refrain from ranking the results of NAT among schools. Instead, focus on developing intervention programs which can further enhance the learners' skills and help create an impact in achieving higher quality learning outcomes.

4. Further, this Office requests the Division Focal Persons for learning outcomes assessment to make an analysis of the 2018 NAT results in your respective divisions for decision making and planning for intervention programs, activities and projects.

5. Immediate dissemination of this memorandum is desired.

CLMD/02

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SY 2017-2018 NATIONAL ACHIEVEMENT TEST (NAT) RESULTS AND ANALYSIS

The Department of Education Regional Office 02 continues to establish relevant and responsive efforts for the learners’ educational needs. Hence, NAT Results Analysis was conducted for decision making and for coming up with regionally initiated intervention programs, projects, and activities to further enhance the quality of education in the region.

The following tables and figures present the region’s overall Mean Percentage Scores (MPS) by Subject Area with the 21st Century Skills measured in the 2018 NAT which include Problem Solving (PS), Information Literacy (IL), and Critical Thinking (CT) skills. Further, this document exhibits the 2018 NAT performance by subject area and by region, Region 02 overall performance by subject area, and percentage distribution of Region 02 test takers based on the criteria on proficiency level by learning area. For regional office consumption and to identify intervention programs that may be accorded to the Schools Divisions, this analysis also includes the Schools Divisions’ performance by 21st century skills and by subject area.

Regional Performance using Mean Percentage Scores (MPS) for Grades 6, 10 and 12

Regional (Across 9 Divisions) Performance for Grade 6

Table A. NAT Grade 6 Performance by Subject Area and by 21st Century Skills

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>21st Century Skills Measured in the 2018 NAT (MPS)</th>
<th>Subject Area MPS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Problem Solving (PS)</td>
<td>Information Literacy (IL)</td>
</tr>
<tr>
<td>Filipino</td>
<td>55.14</td>
<td>55.01</td>
</tr>
<tr>
<td>Mathematics</td>
<td>34.82</td>
<td>43.22</td>
</tr>
<tr>
<td>English</td>
<td>39.97</td>
<td>34.53</td>
</tr>
<tr>
<td>Science</td>
<td>26.81</td>
<td>32.00</td>
</tr>
<tr>
<td>HEKASI</td>
<td>38.82</td>
<td>30.04</td>
</tr>
<tr>
<td>21st Century Skills</td>
<td>39.07</td>
<td>38.96</td>
</tr>
</tbody>
</table>

Table A presents the NAT Grade 6 Mean Performance of learners by 21st Century Skills and by subject area. It can be gleaned in the data that Problem Solving Skills of learners has the highest Mean Percentage Score (MPS) which
pegged at 39.07 with Critical Thinking Skills recorded the lowest mean percentage score of 32.99.

As to Problem Solving Skills, Filipino pegged the highest MPS of 44.91 followed by HEKASI of 38.82. On the other hand, Science registered the lowest MPS which pegged at 26.81.

As regards to Information Literacy Skills, Filipino registered the highest MPS of 55.01 followed by Mathematics which pegged at 43.22. HEKASI posted the lowest MPS with 30.04.

On Critical Thinking Skills, Filipino registered the highest MPS of 44.91 followed by Mathematics which pegged at 31.93. On the other hand, English posted the lowest MPS of 26.06.

With regard to learners’ mean performance by subject area, Filipino recorded the highest MPS which pegged at 51.69 followed by Mathematics with MPS of 36.66. Science posted the lowest mean percentage score of 28.42. Overall, Region 02 Mean Percentage Score pegged at 37.01 which indicates that learners’ Mastery Level Index falls under “Average Mastery”. This further shows that learners performed way below the acceptable MPS.
Figure A. 2018 NAT Grade 6 Region 02 Overall Performance by Subject Area

Figure A reveals the 2018 NAT Grade 6 Region 02 Overall Performance by Subject Area. As exhibited in the figure, Filipino registered the highest overall MPS of 51.68 followed by Mathematics with 36.65. Science and English recorded the lowest performance registering an overall mean of 28.42 and 33.52, respectively. As against the national standard level, all the subject areas are below the standard level of acceptable MPS of 75%. As to competencies, results show that Grade 10 students’ performance fall under “Average Mastery (AM)” level for Filipino and Mathematics while “Low Mastery (LM)” level for HEKASI, English and Science.
PERCENTAGE DISTRIBUTION OF GRADE 6 TEST TAKERS OF CAGAYAN VALLEY REGION BASED ON THE CRITERIA ON PROFICIENCY LEVEL BY LEARNING AREA

Figure B.1 Percentage Distribution of Region 02 Grade 6 Test Takers on Proficiency Level in Filipino

![Percentage Distribution of Region 02 Test Takers Based on the Criteria on Proficiency Level in Filipino](image)

N= 21,923

Figure B.1 shows the Percentage Distribution of Region 02 Grade 6 test takers on Proficiency Level in Filipino. As exhibited in the figure, only .02% of the total number of examinees are highly proficient in Filipino while 5.65% are proficient. It can be deduced in the figure that about 95% of the examinees do not fall under the proficiency level in Filipino.

Figure B.2 Percentage Distribution of Region 02 Grade 6 Test Takers on Proficiency Level in Mathematics

![Percentage Distribution of Region 02 Test Takers Based on the Criteria on Proficiency Level in Mathematics](image)

N= 21,923

Figure B.2 reveals the Percentage Distribution of Region 02 Grade 6 Test Takers on Proficiency Level in Mathematics. As indicated in the figure, only .17% of the total number of examinees are highly proficient in Mathematics while 2.29% are proficient. It can be gleaned in the figure that about 97% of the examinees do not fall under the proficiency level in Mathematics.
Figure B.3 presents the Percentage Distribution of Region 02 Grade 6 Test Takers on Proficiency Level in English. As shown in the figure, only .01% of the total number of examinees are highly proficient in Mathematics while 1.09% is proficient. It can be gleaned in the figure that nearly 99% of the examinees do not fall under the proficiency level in English.

Figure B.4 shows the Percentage Distribution of Region 02 Grade 6 Test Takers on Proficiency Level in Science. As revealed in the figure, no examinee is highly proficient in Science while only .05% is proficient. It can be gleaned in the figure that nearly 100% of the examinees do not fall under the proficiency level in Science.
Figure B.5 Percentage Distribution of Region 02 Grade 6 Test Takers on Proficiency Level in HEKASI

<table>
<thead>
<tr>
<th>Percentage Distribution of Region 02 Test Takers Based on the Criteria on Proficiency Level in HEKASI</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIGHLY PROFICIENT</td>
</tr>
<tr>
<td>21.9%</td>
</tr>
</tbody>
</table>

N=21,923

Figure B.5 presents the Percentage Distribution of Region 02 Grade 6 Test Takers on Proficiency Level in Science. As indicated in the figure, no examinee is highly proficient in HEKASI while only 0.28% is proficient. It can be gleaned in the figure that nearly 100% of the examinees do not fall under the proficiency level in HEKASI.
Regional (Across the 9 Divisions) Performance for Grade 10

Table B. NAT Grade 10 Performance by Subject Area and by 21st Century Skills

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>21st Century Skills Measured in the 2017 NAT (MPS)</th>
<th>Subject Area MPS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Problem Solving (PS)</td>
<td>Information Literacy (IL)</td>
</tr>
<tr>
<td>Filipino</td>
<td>58.27</td>
<td>67.74</td>
</tr>
<tr>
<td>AP</td>
<td>51.90</td>
<td>55.49</td>
</tr>
<tr>
<td>Mathematics</td>
<td>39.95</td>
<td>33.66</td>
</tr>
<tr>
<td>Science</td>
<td>39.73</td>
<td>37.37</td>
</tr>
<tr>
<td>English</td>
<td>50.93</td>
<td>40.32</td>
</tr>
<tr>
<td>21st Century Skills MPS</td>
<td>48.16</td>
<td>46.91</td>
</tr>
</tbody>
</table>

Table B shows the NAT Grade 10 Mean Performance of learners by 21st Century Skills and by subject area. Data reveal that Problem Solving Skills of learners has the highest Mean Percentage Score (MPS) which pegged at 48.16 with Critical Thinking Skills recorded the lowest mean percentage score of 42.15.

As to Problem Solving Skills, Filipino recorded the highest MPS of 58.27 followed by AP of 51.90. On the other hand, Science registered the lowest MPS which pegged at 39.73.

In terms of Information Literacy Skills, Filipino registered the highest MPS of 67.74 followed by HEKASI which pegged at 55.49. Mathematics posted the lowest MPS with 33.66.

On Critical Thinking Skills, Filipino registered the highest MPS of 59.88 followed by AP which pegged at 47.06. On the other hand, Mathematics posted the lowest MPS of 32.42.

With regard to learners’ mean performance by subject area, Filipino recorded the highest MPS which pegged at 61.96 followed by AP with MPS of 51.48. Mathematics posted with the lowest MPS of 35.34. Overall, Region 02 Mean Percentage Score pegged at 45.74 which indicates that learners’ Mastery Level Index falls under “Average Mastery”. This further shows that learners performed way below the acceptable MPS.
Figure C reveals the 2018 NAT Grade 10 Region 02 Overall Performance by Subject Area. As exhibited in the figure, Filipino registered the highest overall MPS of 58.31 followed by Araling Panlipunan with 51.58. Mathematics and Science recorded the lowest performance registering an overall mean of 35.34 and 36.91, respectively. As against the national standard level, all the subject areas are below the standard level of acceptable MPS of 75%. As to competencies, results show that Grade 10 students’ performance falls under “Average Mastery (AM)” level.
PERCENTAGE DISTRIBUTION OF GRADE 10 TEST TAKERS OF CAGAYAN VALLEY REGION BASED ON THE CRITERIA ON PROFICIENCY LEVEL BY LEARNING AREA

Figure D.1 Percentage Distribution of Region 02 Grade 10 Test Takers on Proficiency Level in Filipino

Figure D.1 shows the Percentage Distribution of Region 02 Grade 10 Test Takers on Proficiency Level in Filipino. As exhibited in the figure, only .05% of the total number of examinees are highly proficient in Filipino while 12.39% are proficient. It can be deduced in the figure that about 88% of the examinees do not fall under the proficiency level in Filipino.

Figure D.2 Percentage Distribution of Region 02 Grade 10 Test Takers on Proficiency Level in Mathematics

Figure D.2 presents the Percentage Distribution of Region 02 Grade 10 test takers on Proficiency Level in Mathematics. As revealed in the figure, no examinee is noted to be highly proficient in Mathematics while only 1.78% are proficient. It can be gleaned in the figure that about 98% of the examinees do not fall under the proficiency level in Mathematics.
Figure D.3 presents the Percentage Distribution of Region 02 Grade 10 Test Takers on Proficiency Level in English. As shown in the figure, only .01% of the total number of examinees are highly proficient in Mathematics while 2.03% is proficient. Further, it can be gleaned in the figure that nearly 98% of the examinees do not fall under the proficiency level in English.

Figure D.4 shows the Percentage Distribution of Region 02 Grade 10 test takers on Proficiency Level in Science. As revealed in the figure, no examinee is highly proficient in Science while only .41% is proficient. It can be gleaned in the figure that nearly 100% of the examinees do not fall under the proficiency level in Science.
Figure D.5 Percentage Distribution of Region 02 Grade 10 Test Takers on Proficiency Level in Araling Panlipunan (AP)

Figure D.5 presents the Percentage Distribution of Region 02 Grade 10 Test Takers on Proficiency Level in Araling Panlipunan. As indicated in the figure, only 0.01% of the examinees are highly proficient in AP while 10.93% is proficient. It can be gleaned in the figure that nearly 89% of the examinees do not fall under the proficiency level in AP.
Regional (Across the 9 Divisions) Performance for Grade 12

Table C. NAT Grade 12 Performance by Subject Area and by 21st Century Skills

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>21st Century Skills Measured in the 2018 NAT (MPS)</th>
<th>Subject Area MPS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Problem Solving(PS)</td>
<td>Information Literacy(IL)</td>
</tr>
<tr>
<td>Science</td>
<td>28.80</td>
<td>31.53</td>
</tr>
<tr>
<td>Philosophy</td>
<td>40.92</td>
<td>31.47</td>
</tr>
<tr>
<td>Humanities</td>
<td>39.52</td>
<td>41.34</td>
</tr>
<tr>
<td>Media and Info Literacy</td>
<td>49.14</td>
<td>48.20</td>
</tr>
<tr>
<td>Mathematics</td>
<td>28.15</td>
<td>34.98</td>
</tr>
<tr>
<td>Language</td>
<td>37.49</td>
<td>44.64</td>
</tr>
<tr>
<td>Social Studies</td>
<td>40.90</td>
<td>36.95</td>
</tr>
<tr>
<td>21st Century Skills MPS</td>
<td>37.85</td>
<td>37.99</td>
</tr>
</tbody>
</table>

N=19,372 Overall MPS

Table C presents the NAT Grade 12 Mean Performance of learners by 21st Century Skills and by subject area. Data reveal that Information Literacy has the highest Mean Percentage Score (MPS) which pegged at 37.99 with Critical Thinking Skills recorded the lowest mean percentage score of 37.38.

As to Problem Solving Skills, Media and Info Literacy recorded the highest MPS of 49.14 followed by Philosophy of 40.92. On the other hand, Mathematics registered the lowest MPS which pegged at 28.15.

In terms of Information Literacy Skills, Media and Info Literacy registered the highest MPS of 48.20 followed by Language which pegged at 44.64. Science posted the lowest MPS with 31.53.

On Critical Thinking Skills, Media and Info Literacy registered the highest MPS of 48.91 followed by Language which pegged at 39.42. On the other hand, Mathematics posted the lowest MPS of 29.94.

With regard to learners’ mean performance by subject area, Media and Information Literacy recorded the highest MPS which pegged at 48.75 followed by Language with MPS of 40.52. Mathematics posted with the lowest MPS of 31.02. Overall, Region 02 Mean Percentage Score pegged at 37.74 which indicates that learners' Mastery Level Index falls under “Average Mastery”. This further shows that learners performed way below the acceptable MPS.
Figure E. 2018 NAT Grade 12 Region 02 Overall Performance by Subject Area

Figure E reveals the 2018 NAT Grade 12 Region 02 Overall Performance by Subject Area. As exhibited in the figure, Media and Information Literacy registered the highest overall MPS of 48.55 followed by Language and Communication with 40.52. Mathematics and Science recorded the lowest performance registering an overall mean of 30.91 and 31.94, respectively. As against the national standard level, all the subject areas are below the standard level of acceptable MPS of 75%. As to competencies, results show that Grade 12 students' performance in Media and Information Literacy, Language and Communication, Social Studies, Humanities and Philosophy fall under “Average Mastery (AM)” level while students’ performance in Mathematics and Science fall under “Low Mastery (LM)” level.
PERCENTAGE DISTRIBUTION OF GRADE 12 OF THE CAGAYAN VALLEY REGION BASED ON THE CRITERIA ON PROFICIENCY LEVEL BY LEARNING AREA

Figure F.1. Percentage Distribution of Region 02 Grade 12 Test Takers on Proficiency Level in Science

![Percentage Distribution of Region 02 Grade 12 Test Takers Based on the Criteria on Proficiency Level in Science]

- Highly Proficient: 18.54%
- Proficient: 70.48%
- Nearly Proficient: 0.01%
- Low Proficient: 0.98%
- Not Proficient: 0.48%

N= 19,372

Figure F.1 shows the Percentage Distribution of Region 02 Grade 12 test takers on Proficiency Level in Science. As exhibited in the figure, no examinee is noted to be highly proficient in Science while only .01% of the takers are proficient. It can be gleaned in the figure that almost all of the test takers did not meet the proficiency level in Science.

Figure F.2. Percentage Distribution of Region 02 Grade 12 Test Takers on Proficiency Level in Philosophy

![Percentage Distribution of Region 02 Grade 12 Test Takers Based on the Criteria on Proficiency Level in Philosophy]

- Highly Proficient: 65.79%
- Proficient: 13.31%
- Nearly Proficient: 0.11%
- Low Proficient: 12.53%
- Not Proficient: 0.01%

N= 19,372

Figure F.2 reveals the Percentage Distribution of Region 02 Grade 12 Test Takers on Proficiency Level in Philosophy. As indicated in the figure, no examinee is noted to be highly proficient in Philosophy while only .11% of the takers are proficient. Further, can be gleaned in the figure that nearly 100% of the examinees do not fall under the proficiency level in Philosophy.
Figure F.3 presents the Percentage Distribution of Region 02 Grade 12 test takers on Proficiency Level in Humanities. As shown in the figure, no test taker is highly proficient in Humanities while only 0.01% of the takers are proficient. It can be gleaned in the figure that nearly 100% of the total number of test takers do not fall under the proficiency level in Humanities.

Figure F.4 shows the Percentage Distribution of Region 02 Grade 12 Test Takers on Proficiency Level in Media and Information Literacy. As revealed in the figure, among the 19,372 takers, .41% and 7.91% are highly proficient and proficient, respectively. It can be deduced in the figure that nearly 91% of the examinees do not fall under the proficiency level in Media and Information Literacy.
Figure F.5 presents the Percentage Distribution of Region 02 Grade 12 Test Takers based on Proficiency Level in Mathematics. As indicated in the figure, no Grade 12 falls under proficient level in Mathematics. A very high percentage of test takers falls under "low and not proficient" levels.

Figure F.6 shows the Percentage Distribution of Region 02 Grade 12 Test Takers based on Proficiency Level in Language and Communication. As revealed in the figure, among the 19,372 takers, only .07% are proficient while no taker is considered as highly proficient. It can be deduced in the figure that about 90% of the examinees do not fall under the proficiency level in Language and Communication.
Figure F.7 Percentage Distribution of Region 02 Grade 12 Test takers on Proficiency Level in Social Studies

As shown in the figure, no test taker is highly proficient in Social Studies while only .11% of the takers are proficient. It can be gleaned in the figure that about 90% of the total number of test takers do not fall under the proficiency level in Social Studies.
GENERAL FINDINGS AND CONCLUSIONS

Based on the results of 2018 NAT performance for Grades 6, 10 and 12 using Mean Percentage Scores (MPS) by subject area, the following general findings and conclusions were drawn:

Assessment results for Grade 6 reveal the urgent need of more intervention programs and activities to increase learners' performance. The 21st Century Skill which exhibited the highest percentage includes problem solving while critical thinking recorded the lowest percentage.

As to NAT Grade 6 performance, all subject areas recorded varied mean percentage scores with Filipino, recorded the highest mean followed by Mathematics while Science and English registered the lowest mean percentage score. Grade 6 learners invariably performed way below the level of acceptable MPS in all subject areas. Tested learning areas with low mastery include Science, English and HEKASI.

The results of 2018 NAT Grade 10 are indicative of the very low performance of students. Problem Solving Skills among students posted the highest mean while Critical Thinking Skills registered the lowest mean.

For NAT Grade 10, all subject areas recorded varied mean percentage scores with Filipino, recorded the highest mean followed by Araling Panlipunan while Mathematics and Science registered the lowest mean percentage score. Also, Grade 10 learners invariably performed way below the level of acceptable MPS in all subject areas. Learners obtained the mastery level index of “Average Mastery (AM) in all tested learning areas except Mathematics with low mastery level.

On the other hand, results of 2018 NAT Grade 12 indicate a very low performance of senior high school students. Information Literacy Skills among students posted the highest mean while Critical Thinking Skills registered the lowest mean.

With regard to NAT Grade 12, all subject areas recorded varied mean percentage scores with Media and Information Literacy, recorded the highest mean followed by Language and Communication while Mathematics and Science registered lowest among the tested learning areas. Also, Grade 12 learners invariably performed way below the level of acceptable MPS in all subject areas.

Overall, the region was not able to surpass 75% level of proficiency and accuracy in all subject areas for Grades 6, 10 and 12 as exhibited in the results of 21st Century Skills and learning areas tested. This implies that most
divisions must be given technical assistance to somehow address to the need of increasing students’ NAT performance. To a large extent, much improved training designs, more localization of materials and research-based instruction must be strengthened and intensified.

Further, results also serve as basis for identification of lessons learned and putting forward recommendations. For instance, no subject area both in NAT Grades 6 and 10 reached the acceptable level of MPS. Since the mean percentage scores in subject areas are far lower than 75%, they are indicative of furtherance of training design for teachers, development of relevant teacher support materials (TSMs) and learners’ materials.

The results obtained in the 2018 National Achievement Test for Grades 6, 10, and 12 suggest for more intervention programs in achieving quality basic education services in the region.

RECOMMENDATIONS

Based on the findings and conclusions, the following are recommended:

- Both RO and SDO must focus more on developing new contextualized learning resources focusing on the learning areas with low MPS and without LMs;

- Curriculum Implementation Divisions (CID) should intensify monitoring and evaluation on curriculum implementation specifically on the different programs such as DAP-ELLN, PRIMALS for Grades 4-6, PRIMALS for Junior High School and Critical Content both for Elementary and Secondary;

- Retooling of non-major teachers must be done;

- School-based Learning Action Cell must be intensified focusing on instructional materials development for Key Stage 2, PRIMALS for Key Stage 2(Grades 4-6), and PRIMALS for Key Stage 3(JHS);

- More hands-on activities in the classroom setting must be observed;

- Strategic Intervention Materials (SIMs) Development in core subject areas must be conducted;

- Capability building of teachers on assessment and test construction along with item analysis must be conducted;

- School Heads should focus more on instructional materials preparation among teachers;
• Time-on-Task must be observed strictly. Teachers must adhere to 6-hour daily teaching and 2-hour instructional materials preparation. Also, teachers should be deloaded from ancillary services to give focus on classroom instruction; and

• Limit school activities that disturb classes

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Director IV/ Regional Director