NEPAL'S PRIMARY LEVEL CURRICULUM AND TEACHER TRAINING PACKAGES GAP ANALYSIS BASED ON LEARNING METRICS TASK FORCE'S GLOBAL LEARNING DOMAINS FRAMEWORK"

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Prepared by Samunnat Nepal in coordination with Curriculum Development Centre, National centre for Educational Development and Supported by Unicef Nepal
Acknowledgement

This gap analysis report of primary level curriculum of Nepal is the result of the recommendation provided by high level government officers in a workshop on the dissemination of the consolidated and brief report on LMTF. This report is based on the gap analysis carried out on the primary level curriculum on the basis of the seven LMTF domains. Similarly, as teachers are central to curriculum delivery, gap analysis of the primary level teacher training package was also carried out.

This report provides a comprehensive account of the gap analysis of the primary level curriculum as well as the teacher training package. This is the joint effort of many personnel for which Samunnat Nepal wishes to acknowledge their valuable contribution in the preparation of this report.

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Samunnat Nepal
-fighting poverty for quality learning
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Acronyms and abbreviations

CA: Culture and Arts
CDC: Curriculum Development Center
CUE: Center for Universal Education
DEO: District Education Office
DoE: Department Of Education
ERO: Education Reform Office
EFA: Education for all
GEFI: Global Education First Initiative
GMR: Global Monitoring Report
JICA: Japan International Cooperation Agency
LOs: Learning Outcomes
LGOs: Level-wide General Objectives
LM: Learning Metrics
LMTF: Learning Metrics Task Force
MDGs: Millennium Development Goals
MoE: Ministry of Education
NCED: National Centre for Educational Development
NFEC: Non-Formal Education Centre
NGOs: Non-Governmental Organizations
SN: Samunnat Nepal
SS: Social Studies
SOs: Specific Objectives
UIS: UNESCO Institute of Statistics
UNICEF: United Nations Children’s Fund
USAID: United States Agency for International Development
CHAPTER ONE

This chapter deals with the background on how the Learning Metrics Task Force (LMTF) was formed worldwide and nationally, giving a brief description of the international and national contexts. Furthermore this chapter describes the settings and procedures for carrying out the gap analysis.

Context:

International

The Learning Metrics Task Force (LMTF) aims to work within the Millennium Development Goals (MDG), Education for All (EFA), and Global Education First Initiative (GEFI) and contributes to their fulfillment. Convened by the UNESCO Institute of Statistics (UIS) and Center for Universal Education at the Brookings Institution (CUE) the LMTF was formed to give tangible meaning to the EFA Goal 6 which states that “Improving all aspects of the quality of education and ensuring excellence of all so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills.” It calls for a global paradigm shift from access to access plus learning.

Despite high levels of primary school enrollment rates throughout the world; those gains have been uneven due to unacceptably low learning levels. The EFA Global Monitoring Report (GMR) 2013/14 pointed out that worldwide 250 million primary age children were unable to read, write and count well despite four years in school. Yet, we do not know the full scale of the crisis because measurement of learning outcomes is limited in many countries and hence difficult to assess at an international level.

As the debate intensifies over the post-2015 global development agenda, the report from the LMTF lays out a framework to put learning on the agenda and track learning among the world’s children and youth in order to achieve education quality for all. The Task Force aimed to build consensus around three core questions:

- **What learning is important for all children and youth?**
- **How should learning outcomes be measured at the global and national levels?**
- **How can measurement of learning improve education quality?**

A series of three reports, I, II and III present key indicators to track learning at the global level and monitor progress in foundational skills, such as literacy and numeracy, but also goes beyond these traditional indicators. The report calls for new global indicators to include “readiness to learn” in early childhood; skills and values for youth to be successful “citizens of the world”; and “learning for all” indicator that would combine measures of education access, completion and reading into one statistics. The task force also provides a framework of seven domains of learning that are essential for all children and youth to master as they prepare for their future lives and livelihood. Learning serves as the foundation for all of the priorities in the run-up to 2015, from better livelihoods to climate change.
National

Nepal has been involved in the countrywide LMTF consultation discussion through UNICEF support wherein the LMTF phase I and phase II consultations with high level national level stakeholders (Education Reform Office (ERO), Curriculum Development Centre (CDC), Ministry of Education (MoE)) in the presence of LMTF members (MoE, Department of Education (DoE), National Centre for Education Development (NCED), CDC, ERO, USAID, JICA) were organized. Based on these consultations, a draft report was submitted to LMTF Secretariat.

Nepal was selected as one of the Learning Champion partners by LMTF Secretariat along with 14 other countries wherein the countries develop a detailed work plan to carry forward the recommendations of the LMTF. In Nepal, the ERO was selected as the responsible government agency partner to carry forward these tasks along with the support from Samunnat Nepal, a Non-Governmental Organization (NGO) working in education and development.

A consolidated brief report based on the LMTF reports was developed with the involvement of national level stakeholders. A one-day dissemination of the report was held on March 15, 2015 amongst 25 high level government officials organized under the leadership of CDC Executive Director, Mr Diwakar Dhungel. The dissemination program was chaired by the Joint Secretary of MoE, Mr Lava Deo Awasthi. During the program, participants discussed about the possibility of the post 2015 education program to be guided by this very crucial document. And, there was mutual consensus for a need to review the curriculum of Nepal based on the LMTF domains.

The LMTF has divided the school level education into three stages viz. pre-primary, primary and post-primary. However, at this stage only the primary level curriculum has been reviewed. The necessary settings were arranged for carrying out the task of reviewing and finding the gap between the competencies in the Primary Level Curriculum of Nepal including Teacher Training package and LMTF’s domains.

A Steering Committee was formed under the chairmanship of Executive Director of CDC. Under this committee, five thematic teams were formed to carry out the review of the primary level curriculum based on the seven domains mentioned by the LMTF. As teacher trainings are carried out based on the teacher training packages as per primary level curriculum, a working group was formed to carry out the review of the primary level teacher training package as well. Samunnat Nepal has been supported by UNICEF to carry out these tasks.

The five thematic teams formed were comprised of subject-wide specialists of Nepali, English, Mathematics, Social Studies including Creative Arts and Science including Physical Education and Health from CDC and external specialists. Similarly, a working group to review the teacher training package was formed comprising of training specialists from NCED and other external specialists – Appendix A and B pg 27.
CHAPTER TWO

Methodology

The previous chapter dealt with the context and settings arranged for carrying out this task of finding the gap between the competencies in the Primary Level Curriculum of Nepal including Teacher Training package and Global Learning Domains Framework proposed by the LMTF.

This chapter presents the methodology adopted for the same. The curriculum of Nepal is designed as per subjects, covering various areas of learning and the competencies for each subject are defined as Level-wide General Objectives (LGO) – Appendix D pg 32. And, LGOs for each subject are further defined in detail as Learning Outcomes (LOs)/Specific Objectives (SOs) specific to each grade.

The seven domains of the Global Learning Domains Framework are divided into sub-domains as per the stages/levels viz. Early Childhood, Primary and Post-primary – Appendix C1 pg 28, and these sub-domains are described accordingly. With the description of seven domains, the description of each of the sub-domains of primary level gives a picture of the depth of learning with the competencies covered for that area of the sub-domain under that particular domain – Appendix C2 pg 29.

It was observed that the seven domains and their sub-domains do not match exactly, one to one, with the subjects and subject-wide areas as provided by Nepal’s curriculum. However, although the domains are not subject based, because it was proposed for the global learning framework, it is apparent that many of the competencies mentioned in them are also included in one way or the other in Nepal’s subject-wide LGOs. Hence, it is likely that subjects and corresponding LGOs of Nepal’s curriculum are spread across the domains and descriptions of sub-domains. And so, it is imperative that LGOs of each of the subjects of Nepal’s curriculum be seen across all the sub-domains of LTMF’s Global Learning Domains Framework in order to find the gap between the two.

With this notion, a tool was developed to tabulate the LGOs of all the subjects of Nepal’s curriculum against the descriptions of sub-domains of all the domains. The major elements included in this tool were the columns in which the Subject Experts of CDC, Sanothimi can enter the serial numbers of LGOs of the subjects from Nepal’s curriculum against the sub-domains, using their judgments whether the competency level of that particular LGO matches with the description of that sub-domain very much or to some extent with some differences or is not covered at all.

Since this task of gap analysis was also linked with the teacher training conducted in Nepal, another simplified tool was developed with just three columns for three elements: Domains, Sub-domains and Provision in Nepal’s Training curriculum. The tool was developed in simplified form with the understanding that teacher trainings in general in Nepal are content based.

After necessary corrections incorporating the suggestions following many rounds of discussions with the experts, the tool for the curriculum analysis in its finalized form – Appendix E pg 35 and the tool for the teacher
Training – Appendix F pg 38 were presented to the working teams including subject experts of CDC, Training Experts of NCED and external consultants.

A session was conducted at CDC including curriculum and training experts of CDC and NCED to orient them with the form and the detail process with necessary examples of tabulating LGOs/provisions in them. The forms were also translated into Nepali language following their suggestion. After they have done some exercise in the tabulation process, another round of session was conducted with them in order to clarify confusions, if they had faced any.

Completed forms of all the subjects tabulated by the CDC experts were then collated (using initial alphabet/s of the subjects) and data cleaning was done with the help of consultants. In the mean time, with the necessary support from external consultants, tables for each of the domains were constructed picking the action verbs used and competencies mentioned in the description of sub-domains. Similar types of tables were constructed for the LGOs also. The form completed by the experts of NCED was also collected to be included in the report – Appendix F.

In order to present the Key Findings of this task of finding the gap, simple percentages on the basis of total number of LGOs for each subject as mentioned in Nepal’s curriculum were calculated for the LGOs included/not included or matching/not matching with the description of LMTF’s sub-domains.

**Coverage**

The present task of gap analysis, within its scope was carried out with the coverage as follows:

- Description of Sub-domains of Primary Level only from the LMTF’s Global Learning Domains Framework
- Level-wide General Objectives only from Nepal’s Primary Level Curriculum
- Primary Level Curriculum based Subject-wide Training Modules/Packages only from NCED’s Ten-months Teacher Training Curriculum: 2000 – 2009.
CHAPTER THREE

Key Findings

The findings are presented in two sections – Curriculum and Teacher Training.

CURRICULUM

The previous chapter described the methodology adopted for finding the gap between the LMTF’s Global Learning Domains Framework and subject-wide LGOs of Nepal’s curriculum, together with teacher training.

This chapter presents the findings of the gap between these two, the LMTF’s Global Learning Domains Framework and subject-wide LGOs first and then about the teacher training at the end. Before unfolding the span of subject-wide LGOs through the domains and portraying the gap, the presentation attempts to proceed with a comprehensive outlook of the range covered by the subjects of Nepal’s curriculum across the LMTF’s domains.

Comprehensive Outlook

The LMTF’s domains were not subject based and so the sub-domains under them were not as per the areas included in the subjects of Nepal’s curriculum. Nevertheless, the domains were indicative enough for the subjects to correspond with, except the domain of Learning approach and cognition. As for example, domain of Physical well-being with subjects like Health and Physical Education; the domain of Numeracy and mathematics with the subject of Mathematics; the domain of Science and technology with the subject of Science, etc.

Table 1: Subjects of Nepal’s Curriculum across LMTF’s Domains

<table>
<thead>
<tr>
<th>Domains</th>
<th>Nepali</th>
<th>Maths</th>
<th>Social Studies</th>
<th>Creative Arts</th>
<th>Science</th>
<th>Health</th>
<th>Physical Ed.</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Physical well-being</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Social and emotional</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>3. Culture and Arts</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>4. Literacy and Communication</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>5. Learning approach and cognition</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>6. Numeracy and mathematics</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>7. Science and technology</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
<td>✔</td>
</tr>
</tbody>
</table>

Although the domains were indicative to subjects to some extent (Table 1), LGOs of all the subjects were found to be spreading over more than one domain, except for the domain of Numeracy and mathematics limiting to the subject of Mathematics only. Whereas, even though the domain of Learning approach and cognition does not specifically indicate to any subject as such, this domain was found to be having the LGOs of most subjects – Nepali, Mathematics, Social Studies and Science – spreading over it.
The table below (Table 2) gives an overall picture of the LGOs of various subjects matching the domains. The coverage has been presented as per the number and percentages of matching levels of the comparable competencies mentioned as the LGOs of Nepal’s curriculum and the description of sub-domains of LMTF’s domains.

Table 2: Coverage of LGOs of various Subjects in LMTF’s Sub-domains

<table>
<thead>
<tr>
<th>Subjects in Nepal’s Curriculum</th>
<th>Total number of LGOs</th>
<th>Number and percentage of LGO’s in Nepal’s Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Matching LMTF’s Sub-domains</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Level matching (#)</td>
</tr>
<tr>
<td>1. Nepali</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>2. Mathematics</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>3. Social Studies</td>
<td>15</td>
<td>x</td>
</tr>
<tr>
<td>4. Creative Arts</td>
<td>12</td>
<td>x</td>
</tr>
<tr>
<td>5. Science</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>6. Health</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>7. Phy. Education</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>8. English</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>73</strong></td>
<td><strong>18</strong></td>
</tr>
</tbody>
</table>

* Partially not covered

It was found that almost all the subjects have at least one LGO, the competency of which level matches with the description of LMTF’s sub-domain, except two subjects, Social Studies and Creative Arts that have none. The subject of Science was found to be with highest percentage (57.1) of LGOs that have competency level matching with the description of LMTF’s sub-domain, followed by the subject of Mathematics (55.6 %). The subject of Health was found to be with the lowest percentage (14.3) at this level, followed by the subject of Nepali (25.0 %)

On the level of LGOs matching with some difference with the description of LMTF’s sub-domain, the subject of Social Studies was found to be with the highest percentage (73.3), followed by the subject of Health (71.4 %). And, two subjects, namely, Mathematics and Physical Education were found to have lowest percentages (33.3) followed by the subject of English at this level (40.0 %).

When seen from the angle of totality irrespective of level matching or with some difference – in the use of action verbs to make so for the competency level – excluding a partial no coverage, the subject of Science was found to be with the highest percentage (100) of its LGOs covering the description of LMTF’s sub-domain, followed by the subject of Nepali (91.7 %). The partial LGO of Science not covered by the description of LMTF’s sub-domain was “telling the effects caused by weather on people”.

It was also understandable that not all the descriptions of LMTF’s sub-domain could be expected to have covered by the LGOs and vice-versa. Hence, there were LGOs in every subject, which were not covered by the description of LMTF’s sub-domain, and so also description of LMTF’s sub-domains not included in the LGOs. Some descriptions relating to these aspects have been presented in the corresponding domain related sections followed.
The subjects of Social Studies and Creative Arts, both having no LGOs at the level matching, were found to be with the highest percentages (33.3 and 26.7 respectively) of their LGOs – four each out of a total of 15 and 12 respectively – not covered by the descriptions of LMTF’s sub-domains.

Overall, the coverage of the LGOs from Nepal’s curriculum in the description of sub-domains of LMTF’s domains were found to be 82.2 per cent – 24.7 per cent of level matching and 57.5 per cent with some differences.

And, out of a total 73 LGOs from all the subjects of Nepal’s curriculum, it was found that 13 LGOs – none from Science out of seven, one each from Nepali out of 12, from Mathematics out of nine, from health out of seven, from Physical Education out of six and from English out of five, and four each from Social Studies and Creative Arts, out of 15 and 12 respectively – were not covered (17.8%) by the descriptions LMTF’s sub-domains.

The LGOs from Nepal’s curriculum that were not covered by the descriptions of LMTF’s sub-domains were found generally of the local and national contexts.

**Domains and Sub-domains**

The descriptions provided for the sub-domains of LMTF’s domains were in broader sense. And, it was found that many of those descriptions have not explicitly mentioned action verbs to exemplify the competencies sought. So, it is likely that people might have different perspectives on the coverage and the matching levels of the subject-wide LGOs of Nepal’s curriculum with the descriptions of the sub-domains of LMTF’s domains.

Nevertheless, subject-wide LGOs were also being the general ones for the primary level might apparently be not addressing the descriptions of sub-domains of LMTF’s domains, as one would consider. But, those LGOs were found elaborated when coming to grade-wide specific objectives covering various levels of competencies. However, dealing with all those details is beyond the scope of this analysis.

Presented below are the details of the subject-wide LGOs of Nepal’s curriculum compared to each of the LMTF’s domains and sub-domains. The LGOs presented in the tables are categorized as “level matching”, “matching with some differences” and “not covered” compared with the definitions of the LMTF’s sub-domains.

The tables (Tables 3, 6, 9, 12, 15, 18, 21) present number and percentages of LGOs coverage in the sub-domains of various domains denoting them by the initials of the subjects and a numeral following, i.e. “N a1” for the LGO with serial number “1” of the section (a) in Nepali subject; “M 1” for the LGO with the serial number “1” in Mathematics subject and so on.

And, tables (Tables 4 and 5, 7 and 8, 10 and 11, 13 and 14, 16 and 17, 19 and 20) are presented, with the action verbs used, under each of the tables (Tables 3, 6, 9, 12, 15, 18, 21) for the quick look at the competencies sought by the descriptions of sub-domains of LMTF’s domain and LGOs of Nepal’s curriculum.

1. **Physical well-being**

This domain has four sub-domains. It was found to have coverage over two subjects, Health and Physical Education, from Nepal’s curriculum. The tables below (Table 3, 4 and 5) present the details of the coverage.
Table 3: Coverage of LGOs of various Subjects in LMTF’s First Domain

<table>
<thead>
<tr>
<th>Domain</th>
<th>Sub-domains</th>
<th>Serial Nos. of LGOs in Nepal’s Curriculum matching with the description of LMTF’s Sub-domains</th>
<th>Serial Nos. of LGOs not covered by descriptions of LMTF’s Sub-domains</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Level matching %</td>
<td>With some difference %</td>
</tr>
<tr>
<td>1. Physical well-being</td>
<td>1. Physical health and hygiene</td>
<td>H 3 14.3</td>
<td>H 1; H 2 28.6</td>
</tr>
<tr>
<td></td>
<td>2. Food and nutrition</td>
<td>H 4 14.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Physical activity</td>
<td>PE 2; PE 3; PE 6 50.0</td>
<td>PE 1; PE 5 33.3</td>
</tr>
<tr>
<td></td>
<td>4. Sexual health</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4: Action Verbs used in Sub-domains

<table>
<thead>
<tr>
<th>Domain</th>
<th>Sub-Domains</th>
<th>The Action Verbs used in describing the Sub-domains of a Domain, reflecting the Competencies (knowledge, skills, attitudes and values)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Physical well-being</td>
<td>1. Physical health and hygiene</td>
<td>Understanding; Learn</td>
</tr>
<tr>
<td></td>
<td>2. Food and nutrition</td>
<td>Recognizing; Focus; Maintain</td>
</tr>
<tr>
<td></td>
<td>3. Physical activity</td>
<td>Exercise; Developing</td>
</tr>
<tr>
<td></td>
<td>4. Sexual health</td>
<td>Understanding</td>
</tr>
</tbody>
</table>

Table 5: Action Verbs used in, and Number of LGOs in Subjects

<table>
<thead>
<tr>
<th>Subjects</th>
<th>No. of Level-wide General Objectives</th>
<th>The Action Verbs used in defining the Level-wide General Objectives for each subjects reflecting the Competencies in the Primary Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>7</td>
<td>Have Positive feelings; Carry personal/environmental cleaning; Follow ways; Form habit; Use as per necessity; Understand and Adopt</td>
</tr>
<tr>
<td>Physical Education</td>
<td>6</td>
<td>Demonstrate basic skills; Play general games and sports; Do creative and imitation works</td>
</tr>
</tbody>
</table>

It was found that this domain has covered four out of seven (57.1 %) LGOs mentioned for the subject of Health in Nepal’s curriculum. Of these, LGO serial number “3” was found to be at the matching level (14.3 %) and LGO serial numbers “1” and “2” were found to be with some differences in the level (28.6 %) under the sub-domain of Physical health and hygiene. LGO serial number “4” was found to be with some difference in level (14.3 %) under the sub-domain of Food and nutrition. One of the LGOs with serial number “5” was found to be not covered (14.3 %) by the LMTF’s sub-domain of Physical health and hygiene.

The subject of Health in Nepal’s curriculum has defined LGO number 5 as: following/adopting safety measures in daily activities.

Also, this domain was found to cover five out of six (83.3 %) LGOs - three LGOs at the matching level (50.0 %), and two with some difference in level (33.3 %) mentioned for the subject of Physical Education. Again, this subject was found to have one of the LGOs with serial number “4” not covered (16.7 %) by description of the LMTF’s sub-domain of Physical activity under the domain of Physical well-being.

The subject of Physical Education in Nepal’s curriculum has defined LGO number 4 as: performing/doing activities of mimicry and creativity based on stories and various animals.

One of the four sub-domains, Sexual health, of this domain was found to be completely missing in the LGOs of the subject of Health in Nepal’s curriculum. In a way it is a little bit unusual to find this fact when with the provision of a LGO related to communicable diseases was found to be including introduction of HIV/Aids in the
Scope and sequence table of grade V in Nepal’s curriculum. This may be the result of ambiguity or vagueness in the statement of LGO.

**Gap 1: on physical well being**

The descriptions of sub-domains from this domain found not included in the LGOs of Nepal’s curriculum were the competencies related to (i) understanding how disease is acquired from the sub-domain of Physical health and hygiene; (ii) recognizing how food has an impact on mind and body functions; and eating right amount of food to maintain a healthy weight from the sub-domain of Food and nutrition; (iii) developing individual talents through sports and games from the sub-domain of Physical activity; and (iv) understanding basic concepts of human reproduction from the sub-domain of Sexual Health.

### 2. Social and emotional

This domain has three sub-domains. It was found to have coverage over three subjects, Nepali, Social Studies and Health, from Nepal’s curriculum. The tables below (Table 6, 7 and 8) present the details of the coverage.

#### Table 6: Coverage of LGOs of various Subjects in LMTF’s Second Domain

<table>
<thead>
<tr>
<th>Domain</th>
<th>Sub-domains</th>
<th>Serial Nos. of LGOs in Nepal’s Curriculum matching with the description of LMTF’s Sub-domains</th>
<th>Serial Nos. of LGOs not covered by descriptions LMTF’s Sub-domains</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Level matching</td>
<td>With some difference</td>
</tr>
<tr>
<td>2. Social and emotional</td>
<td>1. Social and community values</td>
<td>N a2; SS 3; H 6</td>
<td>8.3; 6.7; 14.3</td>
</tr>
<tr>
<td></td>
<td>2. Civic values</td>
<td>SS 1; SS 4; SS 7; SS 8; SS 12</td>
<td>33.3</td>
</tr>
<tr>
<td></td>
<td>3. Mental health and well-being</td>
<td>SS 2; H 7</td>
<td>6.7</td>
</tr>
</tbody>
</table>

#### Table 7: Action Verbs used in Sub-domains

<table>
<thead>
<tr>
<th>Domain</th>
<th>Sub-Domains</th>
<th>The Action Verbs used in describing the Sub-domains of a Domain reflecting the Competencies (knowledge, skills, attitudes and values)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Social and emotional</td>
<td>1. Social and community values</td>
<td>Knowledge; Use of life skills</td>
</tr>
<tr>
<td></td>
<td>2. Civic values</td>
<td>Knowledge; Understanding; Ability; Propose</td>
</tr>
<tr>
<td></td>
<td>3. Mental health and well-being</td>
<td>Develop positive coping mechanisms</td>
</tr>
</tbody>
</table>

#### Table 8: Action Verbs used in, and Number of LGOs in Subjects

<table>
<thead>
<tr>
<th>Subjects</th>
<th>No. of Level-wide General Objectives</th>
<th>The Action Verbs used in defining the Level-wide General Objectives for each subjects reflecting the Competencies in the Primary Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nepali</td>
<td>12</td>
<td>Listen; Do; Understand; React; Pronounce correctly and Speak naturally; Tell; Put views; Read clearly/ with interest; Write sequentially and Correctly; Prepare compositions.</td>
</tr>
<tr>
<td>Social Studies</td>
<td>15</td>
<td>Introduce; Be aware; Be compassionate and Respect; Habitate; Be encouraged; Identify and Support for solution; Use in daily life; Follow rules; Tell; Describe and Practice; Investigate; Observe,</td>
</tr>
<tr>
<td>Health</td>
<td>7</td>
<td>Have Positive feelings; Carry personal/environmental cleaning; Follow ways; Form habit; Use as per necessity; Understand and Adopt</td>
</tr>
</tbody>
</table>
As could be guessed by the title of this domain, LGOs of the subject of Social Studies were found covered most by this domain. It was found covering seven out of 15 (46.7 %) LGOs mentioned for the subject of Social Studies in Nepal’s curriculum and all of them were found to be with some difference in the level. This domain was found having none of the LGOs at the matching level category.

Of the LGOs covered by this domain from the subject of Social Studies, LGO serial number “3” was found to be under the sub-domain of Social and community values; serial numbers “1”, “4”, “7”, “8” and “12” under Civic values; and serial number “2” under Mental health and well-being.

This domain was also found to cover two LGOs, out of seven (28.6 %) from the subject of Health; and one LGO out of 12 (8.3 %) from the subject of Nepali, all with some difference in level. Of those two LGOs from Health, serial number “6” was found under the sub-domain of Social and community values, and serial number “7” was found under Mental health. And, one of the LGOs from Nepali was found under the sub-domain of Social and community values.

The subject of Social Studies was found to have three (20.0 %) LGOs, serial numbers “5”, “9” and “14” not covered by the descriptions of the LMTF’s sub-domain of Social and community values and Civic values respectively under this domain of Social and emotional.

The subject of Social Studies in Nepal’s curriculum has defined LGO number 5 as: get inspired/encouraged by the contributions of famous people of local community and national level, and respect them, LGO number 9 as: telling formation and functions of various local bodies (wards, VDC/municipality, and DDC), and LGO number 14 as: (iii) respecting labor and be laborious and adopt habit of being economized.

Gap 2: on social and emotional

The descriptions of sub-domains from this domain found not included in the LGOs of Nepal’s curriculum were the competencies related to (i) knowledge and use of life skills including communication, decision making, assertiveness, peer resistance, self-awareness, negotiation, friendship, self-esteem, advocacy for inclusiveness and non-discrimination, and emotional intelligence related to social and community values from the sub-domain of Social and community values; (ii) developing positive coping mechanisms to respond to traumas and other negative environmental factors from the sub-domain of Mental health and well-being.

3. Culture and the arts

This domain has two sub-domains. It was found to have coverage over three subjects, Nepali, Creative Arts and Social Studies, from Nepal’s curriculum. The tables below (Table 9, 10 and 11) present the details of the coverage.
Table 9: Coverage of LGOs of various Subjects in LMTF’s Third Domain

<table>
<thead>
<tr>
<th>Domain</th>
<th>Sub-domains</th>
<th>Serial Nos. of LGOs in Nepal’s Curriculum matching with the description of LMTF’s Sub-domains</th>
<th>Serial Nos. of LGOs not covered by descriptions of LMTF’s Sub-domains</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Level matching %</td>
<td>With some difference</td>
<td>Not covered %</td>
</tr>
<tr>
<td>3. Culture and the arts</td>
<td>1. Creative arts</td>
<td>N d3; CA a1; CA a2; CA a3; CA a4; CA b1; CA b2; CA b3; CA b4;</td>
<td>CA a5; CA a6; CA a7; CA b5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8.3</td>
<td>66.7</td>
</tr>
<tr>
<td></td>
<td>2. Cultural knowledge</td>
<td>SS 13</td>
<td>6.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>33.3</td>
</tr>
</tbody>
</table>

Table 10: Action Verbs used in Sub-domains

<table>
<thead>
<tr>
<th>Domain</th>
<th>Sub-Domains</th>
<th>The Action Verbs used in describing the Sub-domains of a Domain reflecting the Competencies (knowledge, skills, attitudes and values)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Culture and the arts</td>
<td>1. Creative arts</td>
<td>Develop understanding; Learn; Evaluate; Learn to Apply</td>
</tr>
<tr>
<td></td>
<td>2. Cultural knowledge</td>
<td>Increase knowledge; Develop appreciation; Respect; Honor and Live peacefully</td>
</tr>
</tbody>
</table>

Table 11: Action Verbs used in, and Number of LGOs in Subjects

<table>
<thead>
<tr>
<th>Subjects</th>
<th>No. of Level-wide General Objectives</th>
<th>The Action Verbs used in defining the Level-wide General Objectives for each subjects reflecting the Competencies in the Primary Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nepali</td>
<td>12</td>
<td>Listen; Do; Understand; React; Pronounce correctly and Speak naturally; Tell; Put views; Read clearly/ with interest; Write sequentially and Correctly; Prepare compositions.</td>
</tr>
<tr>
<td>Social Studies</td>
<td>15</td>
<td>Introduce; Be aware; Be compassionate and Respect; Habituate; Be encouraged; Identify and Support for solution; Use in daily life; Follow rules; Tell; Describe and Practice; Investigate; Observe</td>
</tr>
<tr>
<td>Creative Arts</td>
<td>12</td>
<td>Use; Draw and colour; Make; Express; Protect; Sing; Play; Dance; Act; Familiarize and Practice</td>
</tr>
</tbody>
</table>

This domain was found to be covering LGOs of the subject of Creative Arts the most, as evident from its title. It was found covering eight out of 12(66.7 %) LGOs mentioned for the subject of Creative Arts in Nepal’s curriculum. All the eight LGOs – serial numbers “a1”, “a2”, “a3”, “a4”, “b1”, “b2”, “b3” “b4” – covered by this domain were found to be with some difference in the level. And, all of them were found to be under the same sub-domain of Creative arts.

This domain was also found to cover two LGOs, one each from the subjects of Nepali (8.3 %) and Social Studies (6.7 %), both at the same level – with some difference. Of those two LGOs, one from the subject of Nepali with serial number “d3” was found under the sub-domain of Creative arts, and the other from the subject of Social Studies with serial number “13” was found under the sub-domain of Cultural knowledge.

The subject of Creative Arts of Nepal’s curriculum was found to have four (33.3 %) LGOs, serial numbers “a5”, “a6”, “a7” and “b5” not covered by the descriptions of the LMTF’s sub-domain of Creative arts under this domain of Culture and the arts.

The subject of Creative Arts in Nepal’s curriculum under Visual Arts has defined LGO number “a5” as: using basic skills of knitting, LGO number “a6” as selecting and using art materials appropriately, and LGO number “a7” as: being familiar with the process of making local art and preserve them, and under Music has defined LGO number “b5” as: being familiar with the local music and dance and practice them.
Gap 3: on culture and arts

The descriptions of sub-domains from this domain found not included in the LGOs of Nepal’s curriculum were the competencies related to (i) developing an understanding of different artistic processes, and learn how to create, perform, respond to, or evaluate works in one or more artistic forms: dance, music, theater, visual or media arts, and (ii) learning how to apply artistic processes to other areas of their learning and development, such as language development, math, science or critical thinking from the sub-domain of Creative arts; and (iii) increasing knowledge of other cultures, as well as one’s own culture, and develop an appreciation of the similarities and differences that exist between oneself and other cultures and how to respect, honor and live peacefully with others from diverse backgrounds from the sub-domain of Cultural knowledge.

4. Literacy and communication

This domain has seven sub-domains. It was found to have coverage over three subjects, Nepali, Mathematics and English, from Nepal’s curriculum. The tables below (Table 12, 13 and 14) present the details of the coverage.

Table 12: Coverage of LGOs of various Subjects in LMTF’s Fourth Domain

<table>
<thead>
<tr>
<th>Domain</th>
<th>Sub-domains</th>
<th>Serial Nos. of LGOs in Nepal’s Curriculum matching with the description of LMTF’s Sub-domains</th>
<th>Serial Nos. of LGOs not covered by descriptions of LMTF’s Sub-domains</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Level matching %</td>
<td>With some difference %</td>
</tr>
<tr>
<td>4. Literacy and communication</td>
<td>1. Oral fluency</td>
<td>N b1; M 2; E 2</td>
<td>8.3</td>
</tr>
<tr>
<td></td>
<td>2. Oral comprehension</td>
<td>E 1</td>
<td>20.0</td>
</tr>
<tr>
<td></td>
<td>3. Reading fluency</td>
<td>N c1</td>
<td>8.3</td>
</tr>
<tr>
<td></td>
<td>4. Reading comprehension</td>
<td>N c2</td>
<td>8.3</td>
</tr>
<tr>
<td></td>
<td>5. Receptive vocabulary</td>
<td>N a1 N a2; N c3</td>
<td>25.0</td>
</tr>
<tr>
<td></td>
<td>6. Expressive vocabulary</td>
<td>N b3; N d3</td>
<td>16.7</td>
</tr>
<tr>
<td></td>
<td>7. Written expression / composition</td>
<td>N d1; N d2; E 4</td>
<td>25.0</td>
</tr>
</tbody>
</table>

Table 13: Action Verbs used in Sub-domains

<table>
<thead>
<tr>
<th>Domain</th>
<th>Sub-Domains</th>
<th>The Action Verbs used in describing the Sub-domains of a Domain reflecting the Competencies (knowledge, skills, attitudes and values)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Literacy and communication</td>
<td>1. Oral fluency</td>
<td>Extent of speaking</td>
</tr>
<tr>
<td></td>
<td>2. Oral comprehension</td>
<td>Extent of understanding</td>
</tr>
<tr>
<td></td>
<td>3. Reading fluency</td>
<td>Read easily/fluently; Use strategies</td>
</tr>
<tr>
<td></td>
<td>4. Reading comprehension</td>
<td>Understanding well; Answer; Retell</td>
</tr>
<tr>
<td></td>
<td>5. Receptive vocabulary</td>
<td>Know/understand</td>
</tr>
<tr>
<td></td>
<td>6. Expressive vocabulary</td>
<td>Know/feel comfortable</td>
</tr>
<tr>
<td></td>
<td>7. Written expression / composition</td>
<td>Capture ideas; Producing; Writing; Progress</td>
</tr>
</tbody>
</table>
Table 14: Action Verbs used in, and Number of LGOs in Subjects

<table>
<thead>
<tr>
<th>Subjects</th>
<th>No. of Level-wide General Objectives</th>
<th>The Action Verbs used in defining the Level-wide General Objectives for each subjects reflecting the Competencies in the Primary Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nepali</td>
<td>12</td>
<td>Listen; Do; Understand; React; Pronounce correctly and Speak naturally; Tell; Put views; Read clearly/ with interest; Write sequentially and Correctly; Prepare compositions.</td>
</tr>
<tr>
<td>Mathematics</td>
<td>9</td>
<td>Classify and Name; Investigate; Count, Read, Write, Resolve daily life mathematical problems (add, subtract, multiply, divide); Estimate and Use; Solve general problems; Prepare; Communicate; Present; Classify; Use algebraic skills and Solve simple problems</td>
</tr>
<tr>
<td>English</td>
<td>5</td>
<td>Understand and Respond; Practice and Communicate; Responsive and Knowledgeable; Creative writing; Confidence building</td>
</tr>
</tbody>
</table>

Matching with the title, this domain was found to be covering 11 out of 12 (91.7 %) LGOs mentioned for the subject of Nepali language in Nepal’s curriculum. Of the 11 LGOs covered by this domain from the subject of Nepali, three (25.0%) were found to be at the level matching and the rest eight (66.7 %) were found to be with some difference in the level. The LGOs at the level matching were of the serial numbers: “b1”, “c1” and “c2”, and the ones with some difference in level were: “a1”, “a2”, “b2”, “b3”, “c3”, “d1”, “d2”, and “d3”.

Of the three LGOs at the level matching, LGO serial number “b1” was found to be under the sub-domain of Oral fluency; serial number “c1” under the sub-domain of Reading fluency; and “c2” under the sub-domain of Reading comprehension. And, of the remaining eight LGOs with some difference in level, LGO with the serial number “b2” was found to be under the sub-domain of Oral comprehension, serial numbers “a1”, “a2”, and “c3” were found under the sub-domain of Receptive vocabulary; “b3” and “d3” under the sub-domain of Expressive vocabulary; and “d1”, “d2” and again “d3” were found to be under the sub-domain of Written expression/composition.

This domain was also found to be covering four LGOs, out of five (80.0 %) from the subject of English language; and three LGOs out of nine (33.3 %) from the subject of Mathematics. Of those four LGOs covered from the subject of English, two each were found at the level matching (40.0 %) and with some difference in level (40.0 %) respectively. The two LGOs lying at the level matching were found to be under the sub-domains of Oral fluency (serial number “2”) and Oral comprehension (serial number “1”). And, the other two LGOs lying at the level with some difference were found to be under the sub-domains of Reading fluency (serial number “3”) and Written expression/composition (serial number “4”).

And, of the three LGOs out of nine from the subject of Mathematics, one (11.1 %) with serial number “2” was found at the level matching under the sub-domain of Oral fluency, and the other two (22.2 %) LGOs with serial numbers “6” and “7” were found with some difference in level under the sub-domain of Reading comprehension.

The subjects of Nepali language and English language were found to have one LGO each (8.3 % and 20.0 %), serial numbers “a3” and “5” not covered by the descriptions of the LMTF’s sub-domain of Oral comprehension and Written expression/composition respectively under the domain of Literacy and communication domain.
The subject of Nepali in Nepal’s curriculum under listening skill has defined LGO number “a3” as: listening to children’s stories, songs, poems etc. with interest, and the subject of English has defined LGO number 5 as: developing a positive attitude towards learning English and build up confidence in using English.

Gap 4: on literacy and communication

The descriptions of sub-domains from this domain found not included in the LGOs of Nepal’s curriculum were the competencies related to (i) reading fluently including speed, accuracy, and prosody (expression), using strategies when encountering new words including decoding, knowledge of work parts (such as prefixes and suffixes), context clues, and background knowledge from the sub-domain of Reading fluency; (ii) understanding what he or she is reading, answering questions about a passage of text or retelling from the sub-domain of Reading comprehension; (iii) knowing words well enough to understand when reading or hearing them from the sub-domain of Receptive vocabulary; (iv) knowing words well enough to feel comfortable using when speaking or writing from the sub-domain of Expressive vocabulary; (v) capturing ideas through writing (expressions and composition) and producing the written symbols of the language (handwriting) and writing simple original texts and progress to writing for a variety of purposes (e.g., fiction, non-fiction) from the sub-domain of Written expression/composition.

5. Learning approach and cognition

This domain has seven sub-domains. It was found to have coverage over four subjects, Nepali, Science, Mathematics and Social Studies, from Nepal’s curriculum. The tables below (Table 15, 16 and 17) present the details of the coverage.

Table 15: Coverage of LGOs of various Subjects in LMTF’s Fifth Domain

<table>
<thead>
<tr>
<th>Domain</th>
<th>Sub-domains</th>
<th>Serial Nos. of LGOs in Nepal’s Curriculum matching with the description of LMTF’s Sub-domains</th>
<th>Serial Nos. of LGOs not covered by descriptions of LMTF’s Sub-domains</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Level matching</td>
<td>With some difference</td>
</tr>
<tr>
<td>5. Learning approaches and cognition</td>
<td>1. Persistence and attention</td>
<td>N a2</td>
<td>8.3</td>
</tr>
<tr>
<td></td>
<td>2. Cooperation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Autonomy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Knowledge</td>
<td>Sc 3</td>
<td>14.3</td>
</tr>
<tr>
<td></td>
<td>5. Comprehension</td>
<td>M 8</td>
<td>11.1</td>
</tr>
<tr>
<td></td>
<td>6. Application</td>
<td>M 4</td>
<td>11.1</td>
</tr>
<tr>
<td></td>
<td>7. Critical thinking</td>
<td>SS 15</td>
<td>6.7</td>
</tr>
</tbody>
</table>
Table 16: Action Verbs used in Sub-domains

<table>
<thead>
<tr>
<th>Domains</th>
<th>Sub-Domains</th>
<th>The Action Verbs used in describing the Sub-domains of a Domain reflecting the Competencies (knowledge, skills, attitudes and values)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Learning approaches and cognition</td>
<td>1. Persistence and attention</td>
<td>Persistence; Study skills</td>
</tr>
<tr>
<td></td>
<td>2. Cooperation</td>
<td>Interact; Contributing; Learning; Engaging in and Completing</td>
</tr>
<tr>
<td></td>
<td>3. Autonomy</td>
<td>Ability to work alone; Knowing; Persisting</td>
</tr>
<tr>
<td></td>
<td>4. Knowledge</td>
<td>Factual, procedural and conceptual knowledge; Recall; Draw</td>
</tr>
<tr>
<td></td>
<td>5. Comprehension</td>
<td>Construct; Interpreting, Classifying; Summarizing, Comparing</td>
</tr>
<tr>
<td></td>
<td>6. Application</td>
<td>Apply prior knowledge to Solve problems</td>
</tr>
<tr>
<td></td>
<td>7. Critical thinking</td>
<td>Reasoning or judgment (from Interpretation, Analysis/Inference); Metacognition/ Cognitive process (Problem solving-strategy, Deduction, Generalization, Drawing on known facts to Generate new knowledge).</td>
</tr>
</tbody>
</table>

Table 17: Action Verbs used in, and Number of LGOs in Subjects

<table>
<thead>
<tr>
<th>Subjects</th>
<th>No. of Level-wide General Objectives</th>
<th>The Action Verbs used in defining the Level-wide General Objectives for each subject reflecting the Competencies in the Primary Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td>9</td>
<td>Classify and Name; Investigate; Count, Read, Write, Resolve daily life mathematical problems (add, subtract, multiply, divide); Estimate and Use; Solve general problems; Prepare; Communicate; Present; Classify; Use algebraic skills and Solve simple problems</td>
</tr>
<tr>
<td>Social Studies</td>
<td>15</td>
<td>Introduce; Be aware; Be compassionate and Respect; Habitate; Be encouraged; Identify and Support for solution; Use in daily life; Follow rules; Tell; Describe and Practice; Investigate; Observe</td>
</tr>
<tr>
<td>Science and Environment</td>
<td>7</td>
<td>Adopt Scientific methods and processes to get information; Understand importance, Investigate ways and adopt; Tell cause and effects, importance;</td>
</tr>
</tbody>
</table>

It was found that this domain has covered one out of 12 (8.3 %) LGOs mentioned for the subject Nepali; two out of seven (28.6 %) LGOs mentioned for the subject of Science; three out of nine (33.3 %) LGOs mentioned for the subject of Mathematics; and two out of 15 (13.3 %) LGOs mentioned for the subject of Social Studies in Nepal’s curriculum.

Of these, LGO of the subject of Nepali with serial number “a2” in Nepal’s curriculum was found with some difference in level under the sub-domain of Persistence and attention. The two LGOs of the subject of Science with serial numbers “3” and “2” were found at the level matching and with some differences in the level respectively under the sub-domain of Knowledge. Of the three LGOs of the subject of Mathematics, two LGOs with serial numbers “8” and “4” were found to be at the level matching under the sub-domain of Comprehension and Application respectively and the remaining one with the serial number “7” was found with some difference in level under the sub-domain of Comprehension as well. And, both of the two LGOs of the subject of Social Studies with serial numbers “6” and “15” were found with some difference in level under the sub-domain of Application and Critical thinking respectively.

Two sub-domains, Cooperation and Autonomy of this domain were found to be completely missed in dealing with and have none of the LGOs from any subjects in Nepal’s curriculum covering these sub-domains. Although parts of the LGOs from the subjects of Nepali, Science, Mathematics and Social Studies in Nepal’s curriculum were found to be covered by the description of some of the sub-domains from this domain of Learning approaches and cognition, the important aspects of this domain were still found missing in general in addressing the LGOs of Nepal’s curriculum.
Gap 5: on learning approach and cognition

And so, the descriptions of sub-domains from this domain found not included in the LGOs of Nepal’s curriculum were the competencies related to (i) showing persistence through beginning and completing activities, especially challenging tasks from the sub-domain of Persistence and attention; (ii) interacting in a variety of group settings, both contributing to the task at hand as well as learning from more knowledgeable peers and adults, and engaging in and completing tasks that require more than one person to complete from the sub-domain of Cooperation; (iii) working alone, knowing when and how to seek out resources to complete a task and persisting at that task from the sub-domain of Autonomy; (iv) reasoning or judgment resulting from interpretation, analysis, or inference requiring meta cognition, which refers to one’s knowledge of one’s own cognitive processes (problem solving-strategies, deductions, generalizations, drawing on known facts to generate new knowledge, etc. form the sub-domain of Critical thinking.

6. Numeracy and mathematics

This domain has three sub-domains, all related to Numeracy and mathematics. And so, it was found to have coverage over the subject of Mathematics only from Nepal’s curriculum. The tables below (Table 18, 19 and 20) present the details of the coverage.

Table 18: Coverage of LGOs of various Subjects in LMTF’s Sixth Domain

<table>
<thead>
<tr>
<th>Domain</th>
<th>Sub-domains</th>
<th>Serial Nos. of LGOs in Nepal’s Curriculum matching with the description of LMTF’s Sub-domains</th>
<th>Serial Nos. of LGOs not covered by descriptions of LMTF’s Sub-domains</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Numeracy and mathematics</td>
<td>1. Number concepts and operations</td>
<td>M 2; M 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Geometry and patterns</td>
<td>M 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Mathematics application</td>
<td>M 6; M 7</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level matching</th>
<th>%</th>
<th>With some difference</th>
<th>%</th>
<th>Not covered</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>22.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>11.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>22.2</td>
<td></td>
<td>22.2</td>
<td>M 9</td>
<td>11.1</td>
</tr>
</tbody>
</table>

Table 19: Action Verbs used in Sub-domains

<table>
<thead>
<tr>
<th>Domains</th>
<th>Sub-Domains</th>
<th>The Action Verbs used in describing the Sub-domains of a Domain reflecting the Competencies (knowledge, skills, attitudes and values)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Numeracy and mathematics</td>
<td>1. Number concepts and operations</td>
<td>Understanding; Knowing to Compute; Four operations - addition, subtraction, multiplication and division</td>
</tr>
<tr>
<td></td>
<td>2. Geometry and patterns</td>
<td>Recognition; Recognition and Development of patterns; Demonstrate mastery; Recognize and Draw</td>
</tr>
<tr>
<td></td>
<td>3. Mathematics application</td>
<td>Application; Operations; Communicate; Interpret; Reason</td>
</tr>
</tbody>
</table>
Table 20: Action Verbs used in, and Number of LGOs in Subject

<table>
<thead>
<tr>
<th>Subjects</th>
<th>No. of Level-wide General Objectives</th>
<th>The Action Verbs used in defining the Level-wide General Objectives for each subject reflecting the Competencies in the Primary Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td>9</td>
<td>Classify and Name; Investigate; Count, Read, Write, Resolve daily life mathematical problems (add, subtract, multiply, divide); Estimate and Use; Solve general problems; Prepare; Communicate; Present; Classify; Use algebraic skills and Solve simple problems</td>
</tr>
</tbody>
</table>

As the title has implied, this domain was found to be covering seven out of nine (77.8 %) LGOs mentioned for the subject of Mathematics in Nepal’s curriculum. Of these, five (55.6 %) LGOs were found to be at the level matching and the remaining two (22.2 %) were found to be with some difference in the level.

Of the five at the level matching, LGOs with serial numbers “2” and “3” were found to be under the sub-domain of Number concepts and operations; serial number “1” under the sub-domain of Geometry and patterns; and serial numbers “6” and “7” were found to be under the sub-domain of Mathematics application. And, of the two with some difference in level, LGOs with the serial numbers “4” and “5” were found to be under the sub-domain of Mathematics application.

The subject of Mathematics in Nepal’s curriculum was found to have one (11.1 %) LGO with serial numbers “9” not covered by the descriptions of the LMTF’s sub-domain of Mathematics under this domain of Numeracy and mathematics.

The subject of Mathematics in Nepal’s curriculum has defined LGO number 9 as: solving common problems related to algebraic expressions and equations using Algebraic skills.

Gap 6: on numeracy and mathematics

The descriptions of sub-domains from this domain found not included in the LGOs of Nepal’s curriculum were the competencies related to (i) understanding how numbers are organized in systems (e.g., natural numbers, whole numbers, integers, and rational numbers), and (ii) knowing how to compute with different number systems with fluency and whether the outcomes of these computations are reasonable from the sub-domain of Number concepts and operations; (ii) recognizing development of patterns and demonstrating mastery of sequencing patterns of numbers, shapes and objects or recognizing and drawing common two- and three-dimensional geometric figures from the sub-domain of Geometry and patterns.

7. Science and technology

This domain has five sub-domains, all related to Science and technology. And so, it was found to have coverage over the subject of Science only from Nepal’s curriculum. The tables below (Table 21, 22 and 23) present the details of the coverage.
Table 21: Coverage of LGOs of various Subjects in LMTF’s Seventh Domain

<table>
<thead>
<tr>
<th>Domain</th>
<th>Sub-domains</th>
<th>Serial Nos. of LGOs in Nepal’s Curriculum matching with the description of LMTF’s Sub-domains</th>
<th>Serial Nos. of LGOs not covered by descriptions of LMTF’s Sub-domains</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Level matching</td>
<td>%</td>
</tr>
<tr>
<td>7. Science and technology</td>
<td>1. Scientific inquiry</td>
<td>Sc 3</td>
<td>14.3</td>
</tr>
<tr>
<td></td>
<td>2. Life science</td>
<td>Sc 2</td>
<td>14.3</td>
</tr>
<tr>
<td></td>
<td>3. Physical science</td>
<td>Sc 3</td>
<td>14.3</td>
</tr>
<tr>
<td></td>
<td>4. Earth science</td>
<td>Sc 5</td>
<td>14.3</td>
</tr>
<tr>
<td></td>
<td>5. Awareness and use of digital technology</td>
<td>Sc 7</td>
<td>14.3</td>
</tr>
</tbody>
</table>

* Partially not covered.

Table 22: Action Verbs used in Sub-domains

<table>
<thead>
<tr>
<th>Domains</th>
<th>Sub-Domains</th>
<th>The Action Verbs used in describing the Sub-domains of a Domain reflecting the Competencies (knowledge, skills, attitudes and values)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Science and technology</td>
<td>1. Scientific inquiry</td>
<td>Ability to ask questions; Identify; Know; Knowledge of basic problem solving (scientific method); Apply</td>
</tr>
<tr>
<td></td>
<td>2. Life science</td>
<td>Describe; Interaction</td>
</tr>
<tr>
<td></td>
<td>3. Physical science</td>
<td>Study (matter, motion, energy – what, how)</td>
</tr>
<tr>
<td></td>
<td>4. Earth science</td>
<td>Study (earth in solar system, geology, oceanography, weather, climate and resources)</td>
</tr>
<tr>
<td></td>
<td>5. Awareness and use of digital technology</td>
<td>Interact (information and communication technologies)</td>
</tr>
</tbody>
</table>

Table 23: Action Verbs used in, and Number of LGOs in Subjects

<table>
<thead>
<tr>
<th>Subjects</th>
<th>No. of Level-wide General Objectives</th>
<th>The Action Verbs used in defining the Level-wide General Objectives for each subjects reflecting the Competencies in the Primary Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Studies</td>
<td>15</td>
<td>Introduce; Be aware; Be compassionate and Respect; Habitate; Be encouraged; Identify and Support for solution; Use in daily life; Follow rules; Tell; Describe and Practice; Investigate; Observe</td>
</tr>
<tr>
<td>Science and Environment</td>
<td>7</td>
<td>Adopt Scientific methods and processes to get information; Understand importance, Investigate ways and adopt; Tell cause and effects, importance;</td>
</tr>
</tbody>
</table>

Although the title of this domain signify the subject of Science, it was found to be covering one (6.7 %) of the LGOs from the subject of Social Studies apart from covering all the seven (100 %) LGOs mentioned for the subject of Science in Nepal’s curriculum. Of these, four (57.1 %) LGOs were found to be at the level matching and the remaining three (42.9 %) were found to be with some difference in the level. One (6.7 %) of the LGOs out of 15 from the subject of Social Studies in this domain was found to be with some difference in level under the sub-domain of Earth science.

Of the four LGOs of the subject of Science covered in this domain at the level matching, LGOs with the serial numbers “2”, “3”, “5”, and “7” were found to be under the sub-domains of Life science, Scientific inquiry and Physical science, Earth science and Awareness and use of digital technology. And, of the three LGOs with some difference in level, LGOs with the serial numbers “1”, “4”, and “6” were found to be under the sub-domains of Scientific inquiry and Life science, Earth science and Awareness and use of digital technology.

The subjects of Social Studies and Science in Nepal’s curriculum were found to have one LGO each not covered by the descriptions of the LMTF’s sub-domain of Earth science under this domain of Science and technology. One (6.7%) LGO with serial number “10” of Social Studies was found not covered, but the LGO of Science with serial numbers “4” was found to be not covered only partially.
The subject of Social Studies in Nepal’s curriculum has defined LGO number 10 as: studying and describing about geographical features of one’s surroundings and practice drawing map. And the subject of Science in Nepal’s curriculum has defined LGO “4” as: Tell the causes of change in seasons and weather, the change brought about by them on living beings, nonliving things, land and water and their effects on human beings. Of this, the partially not covered was only “…effects on human beings”.

Gap 7: on science and technology

The descriptions of sub-domains from this domain found not included in the LGOs of Nepal’s curriculum were the competencies related to (i) studying of oceanography from the sub-domain of Earth Science; (ii) access to computers and tablets from the sub-domain of Awareness and use of digital technology.

TEACHER TRAINING

Under the policy of Teacher Professional Development (TPD), the present teacher training strategy of NCED is demand based. Since the trainings were based on the demands of teachers, no fixed curriculum of any kinds were available for the trainings at NCED. It was so, because the teacher training institutions prepare the training manuals on their own based on the demands of the teachers, which are generally contextual and local, and deliver the training accordingly. In this context, it was found to be virtually impractical to analyze the present day TPD teacher training modules against the descriptions of the sub-domains of LMTF’s domains.

Hence, a more realistic and feasible approach was adopted for the analysis of teacher training. Accordingly, it was decided to choose ten-months teacher training curriculum of previous years (2000-2009) for this purpose. Because, majority of the teachers still continuing in their profession at present were trained through the NCED prepared subject-wide those training modules/packages based on that curriculum.

It was found that those training modules/packages NCED had prepared were fully based on the primary level curriculum. Therefore, a rigorous exercise, like the one done for the primary level curriculum analysis was decided not necessary for the teacher training. It was decided so, because it was evident that any gap existed in between the primary level curriculum and LMTF’s domains would naturally be the same for the teacher training as well. Nevertheless, the major findings regarding the teacher training packages have been presented below in points:

- As the subjects were found to be spreading over more than one domain, some of the contents of training curriculum were found to be cross cutting ones as well.
- Some of the contents of the training curriculum, being more of the pedagogical nature, were found to be not directly relating to any of the sub-domains of LMTF’s seven domains as such.
Some of the contents, being more related to local and national context, were seemingly found to be not relating to the sub-domains of domains concerned. Hence, the training curriculum was found with no coverage of any content relating to global contexts.

Despite the fact that the primary level curriculum in its scope and sequence table mentioned about introduction of HIV/Aids under communicable diseases, the training curriculum lacks the contents about sexual health, mental health and well-being.

Literacy and communication domain and its sub-domains were found to be heavily represented relating to English and Nepali languages.
CHAPTER FOUR

Recommendations

LMTF has recommended that education systems around the world should focus to develop competencies across seven domains of learning to prepare children and youths for their future lives and livelihoods.

In order to have our curriculum also at par with the curriculums of other countries should they consider LMTF’s recommendations as essential as it is for the rest of the countries, then based on the analysis of Nepal’s curriculum carried out against the definitions of the sub-groups of the seven domains provided by LMTF, the following recommendations have been forwarded to take care of during the revision of our curriculum in due course of time.

1. The Gaps presented in this report need to be minimized as much as possible taking care of the local/national contexts.

2. Special attention needs to be paid regarding the inclusion of competencies related to Learning approaches and cognition in all the subjects.

3. Level-wide General Objectives need to be more explicitly stated to avoid uncertainty of the range in defining and/or in developing grade-wide learning objectives.

4. Teacher training curriculum needs to be matching with the Level-wide General Objectives/Grade-wide Specific Objectives, if they were to be designed for the purpose of content-based training.
# Appendix

## Appendix A: Name list of five thematic groups for carrying out gap analysis of primary level curriculum.

<table>
<thead>
<tr>
<th>S.N</th>
<th>Name of resource person</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mr Diwakar Dhungel (Executive Director as lead)</td>
<td>CDC</td>
</tr>
<tr>
<td>2</td>
<td>Mr Mohan Gopal Nyachhyon</td>
<td>CDC</td>
</tr>
<tr>
<td>3</td>
<td>Mr Pushpa Raj Dhakal (Curriculum Specialist in Science, Physical Education and Health)</td>
<td>CDC</td>
</tr>
<tr>
<td>4</td>
<td>Mr Harish Panta (Curriculum Specialist in Maths)</td>
<td>CDC</td>
</tr>
<tr>
<td>5</td>
<td>Mr Hem Raj Khatiwada (Curriculum Specialist in Social Studies, Creative Arts)</td>
<td>CDC</td>
</tr>
<tr>
<td>6</td>
<td>Ms Rajani Dhamal (Curriculum Specialist in Nepali)</td>
<td>CDC</td>
</tr>
<tr>
<td>7</td>
<td>Mr Nim Prakash Singh (Curriculum Specialist in English)</td>
<td>CDC</td>
</tr>
<tr>
<td>8</td>
<td>Mr Harish Panta (Curriculum Specialist in Maths)</td>
<td>CDC</td>
</tr>
<tr>
<td>9</td>
<td>Dr Bhojraj Kafle</td>
<td>External consultant</td>
</tr>
<tr>
<td>10</td>
<td>Mr Bhola KC</td>
<td>External consultant</td>
</tr>
<tr>
<td>11</td>
<td>Dr Sumon K Tuladhar</td>
<td>Unicef</td>
</tr>
<tr>
<td>12</td>
<td>Mr Yubarak Laudari</td>
<td>Samunnat Nepal</td>
</tr>
<tr>
<td>13</td>
<td>Mr Paban K Adhikari</td>
<td>Samunnat Nepal</td>
</tr>
<tr>
<td>14</td>
<td>Mr Yogesh K Shrestha</td>
<td>Samunnat Nepal</td>
</tr>
<tr>
<td>15</td>
<td>Ms Rosy Shakya</td>
<td>Samunnat Nepal</td>
</tr>
</tbody>
</table>

## Appendix B: Name list of working groups for carrying out gap analysis of primary level teacher training package

<table>
<thead>
<tr>
<th>S.N</th>
<th>Name of resource person</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mr Khagaraj Baral (Executive Director as lead)</td>
<td>NCED</td>
</tr>
<tr>
<td>2</td>
<td>Mr Mohan Gopal Nyachhyon</td>
<td>Lead consultant</td>
</tr>
<tr>
<td>3</td>
<td>Mr Bodh Kumar Khanal (Teacher Training Curriculum Analyst)</td>
<td>NCED</td>
</tr>
<tr>
<td>4</td>
<td>Mr Shankar Adhikari (Teacher Training Curriculum Analyst)</td>
<td>NCED</td>
</tr>
<tr>
<td>5</td>
<td>Mr Paban K Adhikari</td>
<td>Samunnat Nepal</td>
</tr>
<tr>
<td>6</td>
<td>Mr Yubarak Laudari</td>
<td>Samunnat Nepal</td>
</tr>
<tr>
<td>7</td>
<td>Mr Yogesh K Shrestha</td>
<td>Samunnat Nepal</td>
</tr>
<tr>
<td>8</td>
<td>Ms Rosy Shakya</td>
<td>Samunnat Nepal</td>
</tr>
</tbody>
</table>
## Appendix C1: Domains and Sub-domains of the Global Learning Domains Framework

<table>
<thead>
<tr>
<th>Domain Stages</th>
<th>Physical well-being</th>
<th>Social and emotional</th>
<th>Culture and the arts</th>
<th>Literacy and communication</th>
<th>Learning approaches and cognition</th>
<th>Numeracy and mathematics</th>
<th>Science and technology</th>
</tr>
</thead>
</table>
| **Early Childhood Level** | • Physical health and nutrition  
  • Health knowledge and practice  
  • Safety knowledge and practice  
  • Gross, fine, and perceptual motor.  
  • Self-regulation  
  • Emotional awareness  
  • Self-concept and self-efficacy  
  • Empathy  
  • Social relationships and behaviors  
  • Conflict resolution  
  • Moral values  
  • Creative arts  
  • Self- and community-identity  
  • Awareness of and respect for diversity | • Oral fluency  
  • Oral comprehension  
  • Reading fluency  
  • Reading comprehension  
  • Receptive vocabulary  
  • Expressive vocabulary  
  • Written expression/composition  
  • Persistence and attention  
  • Cooperation  
  • Autonomy  
  • Knowledge  
  • Comprehension  
  • Application  
  • Critical thinking | • Curiosity and engagement  
  • Persistence and attention  
  • Autonomy and initiative  
  • Cooperation  
  • Creativity  
  • Reasoning and problem solving  
  • Early critical thinking skills  
  • Symbolic representation  | • Number sense and operations  
  • Spatial sense and geometry  
  • Patterns and classification  
  • Measurement and comparison  | • Inquiry skills  
  • Awareness of the natural and physical world  
  • Technology awareness |
| **Primary Level** | • Physical health and hygiene  
  • Food and nutrition  
  • Physical activity  
  • Sexual health  
  • Social and community values  
  • Civic values  
  • Mental health and well-being  
  • Creative arts  
  • Cultural knowledge | • Persistence and attention  
  • Cooperation  
  • Autonomy  
  • Knowledge  
  • Comprehension  
  • Application  
  • Critical thinking | • Number concepts and operations  
  • Geometry and patterns  
  • Mathematics application  | | |
| **Post-primary Level** | • Health and hygiene  
  • Sexual and reproductive health  
  • Illness and disease prevention  
  • Social awareness  
  • Leadership  
  • Civic engagement  
  • Positive view of self and others  
  • Resilience/“grit”  
  • Moral and ethical values  
  • Social sciences  
  • Creative arts  
  • Cultural studies  
  • Speaking and listening  
  • Writing  
  • Reading | • Collaboration  
  • Self-direction  
  • Learning orientation  
  • Persistence  
  • Problem Solving  
  • Critical decision making  
  • Flexibility  
  • Creativity | • Number concepts and operations  
  • Geometry and patterns  
  • Mathematics application  | | |

*Source: Towards Universal Learning – What Every Child Should Learn: Centre for Universal Education at Brookings and UIS, Feb 2013*
## Appendix C2: Description of Domains and Sub-domains of the Global Learning Domains Framework

<table>
<thead>
<tr>
<th>Domain</th>
<th>Description of domain</th>
<th>Sub-domain</th>
<th>Description of Sub-domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Physical well-being</td>
<td>Physical well-being describes how children and youth use their bodies, develop motor control, and understand and exhibit appropriate nutrition, exercises, hygiene and safety practices. For older children and adolescents, the domain of physical well-being refers to the knowledge that individuals need to learn to ensure their own health and well-being, as well as that of their families and communities.</td>
<td>Physical health and hygiene</td>
<td>Understanding how disease is acquired is important at this level. Children learn how to prevent infectious diseases through hygiene, water and sanitation practices and noninfectious diseases through health and behavioral choices.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Food and nutrition</td>
<td>Outcomes for food and nutrition can vary widely by context. This domain involves recognizing how food has an impact on mind and body functions. In some contexts the focus is on making sure children get enough nutrients, while in others the focus is on eating the right amount of food to maintain a healthy weight.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Physical activity</td>
<td>Physical activity includes exercise and developing individual talents through sports and games.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sexual health</td>
<td>Sexual health at the primary level varies by context, but includes understanding basic concepts of human reproduction.</td>
</tr>
<tr>
<td>2. Social and emotional</td>
<td>Social development refers to how children and youth foster and maintain relationships with adults and peers. It also encompasses how they perceive themselves in relation to others. Emotional development is closely linked and refers to how children and youth understand and regulate their behavior and emotions. This domain also includes aspects of personality and other social skills, including communication and development of acceptable values that are important as children and youth develop both cognitive and noncognitive skills.</td>
<td>Social and community values</td>
<td>Social and community values refers to knowledge and use of life skills, including communication, decision making, assertiveness, peer resistance, self-awareness, negotiation, friendship, self-esteem, advocacy for inclusiveness and nondiscrimination, and emotional intelligence.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Civic values</td>
<td>Civic values refer to knowledge and understanding of social and political concepts, such as democracy, justice, equality and citizenship. It may also include the ability to defend respect for rules and guidelines and propose modification appropriate to contexts in school, home and community.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mental health and well-being</td>
<td>Children develop positive coping mechanisms to respond to traumas and other negative environmental factors.</td>
</tr>
<tr>
<td>3. Culture and the arts</td>
<td>The arts in the realm of education are often described as creative arts expression, and can include activities from the areas of music, theater, dance or creative movement, and the visual, media and literary arts. The foundation for learning in history and social science is built on children’s cultural experiences in their families, school, community and country.</td>
<td>Creative arts</td>
<td>Develop an understanding of different artistic processes, and learn how to create, perform, respond to, or evaluate works in one or more artistic forms: dance, music, theater, visual or media arts. Learn how to apply artistic processes to other areas of their learning and development, such as language development, math, science or critical thinking.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cultural knowledge</td>
<td>Increase knowledge of other cultures, as well as one’s own culture, and develop an appreciation of the similarities and differences that exist between oneself and other cultures and how to respect, honor and live peacefully with others from diverse backgrounds.</td>
</tr>
<tr>
<td>4. Literacy and communication</td>
<td>The domain of literacy and communication includes those skills required to communicate</td>
<td>Oral fluency</td>
<td>Oral fluency is the extent to which a child speaks in the language(s) used in his/her environment.</td>
</tr>
<tr>
<td>Domain</td>
<td>Description of domain</td>
<td>Sub-domain</td>
<td>Description of Sub-domain</td>
</tr>
<tr>
<td>--------</td>
<td>-----------------------</td>
<td>------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td></td>
<td>in the primary language(s) of the society in which the child lives as well as beginning skills that enable children to both communicate and gain knowledge through the written word</td>
<td>Oral comprehension</td>
<td>Oral comprehension the extent to which a child understands the language(s) used in his/her environment.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reading fluency</td>
<td>Reading fluency refers to how easily a child can read, it includes speed, accuracy, and prosody (expression). It is sometimes measured by calculating the speed and accuracy with which a child reads. In order to read fluently children use strategies when encountering new words including decoding (in alphabetic languages), knowledge of work parts (such as prefixes and suffixes in Bahasa Indonesia and English, or characters in Chinese), context clues, and background knowledge.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reading comprehension</td>
<td>Reading comprehension refers to how well a child understands what he or she is reading, sometimes measured by answering questions about a passage of text or retelling.</td>
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<td></td>
<td></td>
<td>Receptive vocabulary</td>
<td>Receptive vocabulary describes the words a child knows well enough to understand when reading or hearing them.</td>
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<tr>
<td></td>
<td></td>
<td>Expressive vocabulary</td>
<td>Expressive vocabulary describes the words a child knows well enough to feel comfortable using when speaking or writing.</td>
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<td></td>
<td>Written expression/composition</td>
<td>Written expression and composition refers to how a child captures ideas through writing. Students may initially focus on producing the written symbols of the language (handwriting) and writing simple original texts and progress to writing for a variety of purposes (e.g., fiction, non-fiction).</td>
</tr>
<tr>
<td>5. Learning approaches and cognition</td>
<td>Learning approaches and cognition refers to engagement, motivation, and participation in learning. It has been defined as the ability to take initiative, solve problems that come up in work and play make use of available resources and reflect on experiences. Learning approaches include many of the skills considered “executive functioning”, which refers to inhibitory control, working memory and the ability to organize, plan and reflect on one’s learning. Cognition is described as the mechanics of thinking and processing information. More specific processes include reasoning, inferring, problem solving, classifying, relating, creating, generating plans and strategies, conceptualizing and thinking.</td>
<td>Persistence and attention</td>
<td>Children show persistence through beginning and completing activities, especially challenging tasks. Skills related to studying can fall under this category.</td>
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<td></td>
<td></td>
<td>Cooperation</td>
<td>Children interact in a variety of group settings, both contributing to the task at hand as well as learning from more knowledgeable peers and adults. It involves engaging in and completing tasks that require more than one person to complete.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Autonomy</td>
<td>Abilities related to working alone, knowing when and how to seek out resources to complete a task and persisting at that task.</td>
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<td></td>
<td>Knowledge</td>
<td>Includes factual, procedural and conceptual knowledge. Children recall previously learned facts, problem-solving procedures and draw on their conceptual understanding of a problem or topic. This knowledge serves as a foundation for more conceptually complex problem-solving tasks.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Comprehension</td>
<td>Children construct meaning from data and material, including interpreting, classifying, summarizing and comparing.</td>
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<tr>
<td></td>
<td></td>
<td>Application</td>
<td>Children apply prior knowledge to solve new and/or challenging problems.</td>
</tr>
<tr>
<td>Domain</td>
<td>Description of domain</td>
<td>Sub-domain</td>
<td>Description of Sub-domain</td>
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<tr>
<td>6. Numeracy and mathematics</td>
<td>Mathematics is a quantitative language used universally to represent phenomena observed</td>
<td>Critical thinking</td>
<td>Reasoning or judgment resulting from interpretation, analysis, or inference. Requires metacognition, which refers to one’s knowledge of one’s own cognitive processes (problem solving-strategies, deductions, generalizations, drawing on known facts to generate new knowledge, etc).</td>
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<tr>
<td></td>
<td>in the environment. Numeracy and mathematics in early childhood include number sense</td>
<td>Number concepts and operations</td>
<td>This subdomain focuses on numbers and number systems. Mastery of this subdomain refers to understanding how numbers work to represent magnitude, that they can be ordered and counted, and that numbers are organized in systems (e.g., natural numbers, whole numbers, integers, and rational numbers). This subdomain also involves knowing how to compute with different number systems with fluency and whether the outcomes of these computations are reasonable. The four operations (addition, subtraction, multiplication and division) are emphasized in this subdomain.</td>
</tr>
<tr>
<td></td>
<td>and related mathematical skills, such as operations, spatial sense and geometry, and</td>
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<tr>
<td></td>
<td>patterns and classification. In primary school, children typically learn concepts</td>
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<tr>
<td></td>
<td>related to numbers, operations, geometry and patterns, and they apply their knowledge</td>
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<td>of mathematics to solve problems. In the postprimary years, the domain of numeracy</td>
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<td></td>
<td>and mathematics refers to the ability of individuals to use quantitative ideas to</td>
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<td></td>
<td>understand the world around them and make informed financial and life choices.</td>
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<tr>
<td>7. Science and technology</td>
<td>Science can be defined as specific knowledge or a body or system of knowledge</td>
<td>Scientific inquiry</td>
<td>Ability to ask questions, identify what knowledge is lacking and know how to acquire it. This includes knowledge of basic problem solving perspectives of science (including the scientific method) and the ways they can be applied.</td>
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<tr>
<td></td>
<td>covering physical laws and general truths. Children and youth move from spontaneous</td>
<td>Life science</td>
<td>Describes the study of living things, life cycles, reproduction, heredity and interaction. Life science also covers interaction with the environment and ecosystems. Health is commonly included in life science.</td>
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<td></td>
<td>knowledge gained in their natural environments to scientific knowledge gained</td>
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<td>through formal schooling. Technology refers to the creation and usage of tools used</td>
<td>Physical science</td>
<td>Includes the domains of matter, motion and energy. Physical science is the study of what things are made of, how they interact with one another and how energy may move from place to place.</td>
</tr>
<tr>
<td></td>
<td>to solve problems. It includes physical technology (such as machines), the application</td>
<td>Earth science</td>
<td>The study of the earth in the solar system, geology, oceanography, weather and climate and resources.</td>
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<td>of methods or systems and computer-based solutions.</td>
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<td></td>
<td>Awareness and use of digital technology</td>
<td>Digital technology refers to the variety of ways children interact with available information and communication technologies. At the primary level, children may have access to cellular telephones, computers, tablets, etc.</td>
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</tbody>
</table>

### Appendix D: Level Wide general objectives (LGOs) in various subjects as per the Primary Education Curriculum 2062 and 2065

<table>
<thead>
<tr>
<th>Subject</th>
<th>Scope</th>
<th>Level Wide general Objectives</th>
</tr>
</thead>
</table>
| **1. Maths** | 1. Geometry | 1. Classify and name the following objects on the basis of their geometrical features (shape, type, angle, measurement) and also explore other geometrical features with measurements  
* Solid Objects: sphere, cylinder, cube, cuboid, cone, prism and its parts (side, angle, surfaces, edges.....)  
* Plane figures: triangle, quadrilateral, parallelogram, square, rectangle, circle. |
<p>| | 2. Concept of Numbers | 2. Count read and write in numerals and words the numbers above one crore in Devnagari and Hindu Arabic numerals and also read the numbers upto 10 lacs (one million) in English. Read and write the numbers 1 to 12 in Roman numerals. |
| | 4. Time, Currency and measurement | 4. Apply in daily life even by approximation Time, Currency, Measurement (distance, perimeter, capacity, temperature, area and volume) and Weight. |
| | 5. Fraction, Decimal, Percentage, Unitary Method and Interest | 5. Solve simple problems on fractions, decimals, percentage, unitary method and interest (by unitary method). |
| | 6. Bill and Budget | 6. Prepare an account of household expenses and income; receive and provide information by reading bills and meter as well. |
| | 7. Statistics | 7. Receive and provide information by reading graph, chart, table and diagram and present the given information in bar graphs as well. |
| | 8. Sets | 8. Prepare a list of elements using set notations {} and write them in words and classify objects in sets on the basis of different characteristics. |
| <strong>2. Social</strong> | Social Studies | 1. To give introduction of self, one's family and neighbor |</p>
<table>
<thead>
<tr>
<th>Subject</th>
<th>Scope</th>
<th>Level Wide general Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studies and Creative Arts</td>
<td>2. To be aware of social evils, untouchably, conservatism etc.</td>
<td>3. To have good faith and respect on practices, costumes, different castes, languages, genders, occupations, religious and fairs and festivals.</td>
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<td></td>
<td>4. To show love, reverence and devotion to the nation and to behave according to the norms and values of democracy (Loktantra).</td>
<td>5. To get encouraged/inspiration from the contributions of local community and famous people of national level and to show respect on them.</td>
</tr>
<tr>
<td></td>
<td>6. To identify various social problems and be helpful to solve them.</td>
<td>7. To be aware of human right, child right and one’s duties and show it in practical life.</td>
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<td></td>
<td>8. To obey social codes and rules.</td>
<td>9. To be able to tell the formation and functions of various local bodies (ward/village development committee/municipality and district development committee)</td>
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<td></td>
<td>10. To be able to study and describe about geographical features of one’s surrounding and practice on drawing map.</td>
<td>11. To give a short introduction of the earth and to explain the geographical feature of Nepal.</td>
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<td></td>
<td>12. To be able to give a short introduction of neighboring countries.</td>
<td>13. To say the historical background of one’s community and the country and to explore about the historical facts.</td>
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<td></td>
<td>14. To respect labour and be laborous and adopt habit of being economized.</td>
<td>15. To observe and explain about the local economic activities and to contribute in them as far as possible</td>
</tr>
<tr>
<td>Creative Arts:</td>
<td>1. To use pencil and eraser properly</td>
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</tr>
<tr>
<td>a. Visual art</td>
<td>2. To make different patterns, shape and faces and color depending on their level</td>
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<td>3. To make picture of their choice</td>
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<td></td>
<td>4. To express themselves freely</td>
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<td></td>
<td>5. To use basic skills of knitting</td>
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<td>6. To select appropriate art materials and use</td>
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<td>7. To be familiar with the process of making local art and preserving those arts</td>
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<tr>
<td>b. Music</td>
<td>1. To sing solo or in chores in accordance with the beat</td>
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<tr>
<td>Subject</td>
<td>Scope</td>
<td>Level Wide general Objectives</td>
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<tr>
<td></td>
<td></td>
<td>2. To introduce/define various instruments and play them</td>
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<td>3. To dance solo, in pair or in group. 4. To act solo or in group on any plot</td>
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<td></td>
<td></td>
<td>4. To act solo or in group based on any topic</td>
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<td>5. To be familiar with the local music and dance and practice them.</td>
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<tr>
<td>3. Science, Health and Physical Education</td>
<td>Science and environment education</td>
<td>1. Adopt scientific methods and process to obtain knowledge about living beings</td>
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<td></td>
<td></td>
<td>2. Understand the importance of living and nonliving beings found in the environment and explore and adopt the ways to conserve and make proper use of them</td>
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<td>3. Adopt simple scientific methods and process to obtain knowledge about matter and energy</td>
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<td>4. Tell the causes of change in seasons and weather, the change brought about by them on living beings, nonliving things, land and water and their effects on human beings.</td>
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<td>5. Obtain basic information about the earth and space</td>
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<td>6. Obtain basic knowledge of information technology and describe its importance</td>
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<td></td>
<td>7. Obtain basic information of local technology and describe its importance</td>
</tr>
<tr>
<td>Health Education</td>
<td></td>
<td>1. Do personal cleanliness with positive attitude of personal hygiene</td>
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<td>2. Carry out environmental sanitation to keep the hygienic environment of home, school and community</td>
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<td>3. Adopt preventive measures to keep oneself safe from communicable diseases</td>
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<td>4. Form the habit of selecting nutritious food from various foodstuff</td>
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<td>5. Follow/Adopt safety measures in accomplishing daily activities</td>
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<td>6. Utilize health services available in the community</td>
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<td>7. Keep oneself away from narcotic drugs and smoking with a realization of their bad effects.</td>
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<tr>
<td>Physical Education</td>
<td></td>
<td>1. Demonstrate the basic skills of physical education</td>
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<td></td>
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<td>2. Demonstrate PT and Drill in rhythm in groups</td>
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<td></td>
<td></td>
<td>3. Play common and local games</td>
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<td></td>
<td></td>
<td>4. Perform/do creative and imitative activities based on stories and various animals</td>
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<td></td>
<td></td>
<td>5. Throw, catch and pass a ball, and play common ball games.</td>
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<tr>
<td>Subject</td>
<td>Scope</td>
<td>Level Wide general Objectives</td>
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</tr>
<tr>
<td><strong>4. English</strong></td>
<td>Listening, speaking, reading and writing</td>
<td>1. to give pupils ample exposure to the English language so that they can understand and respond in simple English with acceptable pronunciation and intonation, 2. to provide them with the opportunities to practice their English in and outside the classroom, so that they can communicate in simple English, 3. to help them develop enthusiasm for reading so that they will be responsive and knowledgeable readers, 4. to help them develop their potentialities in writing so that they can be creative writers, and 5. to develop a positive attitude towards learning English and build up confidence in using English.</td>
</tr>
<tr>
<td><strong>5. Nepali</strong></td>
<td>क) सुनाइ शिप</td>
<td>१. विशिष्ट प्रकारका विद्यार्थीहरूलाई गर्न सोहीअनुसार गर्न । 2. खुप विशिष्ट अवस्थाहरूलाई गर्न छैलमूर्तिक सुनेका गर्न सोही अस्थायी र आश्चर्य बुझिका जनाउन । 3. बालकहरू, गैट, विविध आदि आसान लिनेगी गर्नु ।</td>
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<td>ख) बोलाइ शिप</td>
<td>१. शब्दहरू बुझिका र सम्पदाराई उजागरण गर्न स्वाभाविक गतिका रूपमा बोल्न । 2. देखे सुनेका र अनुभव गरेका खुला बिजलिसिता मिलाई बताउन । 3. युवाक, छल्लेला आसान खुला धक नमानी शिष्ट ढुंगाले राख्न ।</td>
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<td></td>
<td>ग) पढाइ शिप</td>
<td>१. नेपाली भाषामा लेखिएका सरल पद्य सामाजिक गतिमा र यति मिलाई सफल रूपमा पढ्न । 2. सानामा सुचिना विवरण पढ्ने आश्चर्य बुझिका र यसलाई सफल रूपमा पढ्न । 3. सरल वाणिज्यिका रचनाहरूको रुचि लिहिएका साधन ।</td>
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<td></td>
<td>ध) लेखाइ शिप</td>
<td>१. तिन्द्रेदामा बान्नी मिलाइ अक्षर लेरेखा । 2. देखे सुनेका र अनुभव गरेका पुराण शिल्पिता मिलाइ शुद्ध रूपमा लेरेखा । 3. अशाँ अनुभवको सरोजिनीका विवरण छोटा लिखिएका साधन तयार गर्न।</td>
</tr>
</tbody>
</table>

*Source: Primary Education Curriculum, Grade 1-3, 2062, and Grade 4-5, 2065, Government of Nepal, Ministry of Education and Sports, CDC, Sanothimi, Bhaktapur*
## Appendix E: Tool for curriculum analysis

<table>
<thead>
<tr>
<th>Domains</th>
<th>Sub-Domains</th>
<th>Description of Sub-domains</th>
<th>LGOs in Nepal’s Curriculum matching with the description of Sub-domains of LTMF</th>
<th>Level of Difference (behavioral verbs/terms) in between LGO and LTMF</th>
<th>Descriptions of Sub-domains not included in LGOs</th>
<th>LGOs not covered by descriptions of Sub-domains of LTMF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Physical well-being</td>
<td>1. Physical health and hygiene</td>
<td>Understanding how disease is acquired is important at this level. Children learn how to prevent infectious diseases through hygiene, water and sanitation practices and noninfectious diseases through health and behavioral choices.</td>
<td>Exactly</td>
<td>Some Difference</td>
<td>Exactly</td>
<td>Some Difference</td>
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<tr>
<td></td>
<td>2. Food and nutrition</td>
<td>Outcomes for food and nutrition can vary widely by context. This domain involves recognizing how food has an impact on mind and body functions. In some contexts the focus is on making sure children get enough nutrients, while in others the focus is on eating the right amount of food to maintain a healthy weight.</td>
<td>Exactly</td>
<td>Some Difference</td>
<td>Exactly</td>
<td>Some Difference</td>
</tr>
<tr>
<td></td>
<td>3. Physical activity</td>
<td>Physical activity includes exercise and developing individual talents through sports and games.</td>
<td>Some Difference</td>
<td>Some Difference</td>
<td>Exactly</td>
<td>Some Difference</td>
</tr>
<tr>
<td></td>
<td>4. Sexual health</td>
<td>Sexual health at the primary level varies by context, but includes understanding basic concepts of human reproduction.</td>
<td>Some Difference</td>
<td>Some Difference</td>
<td>Exactly</td>
<td>Some Difference</td>
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<tr>
<td>2. Social and emotional</td>
<td>1. Social and community values</td>
<td>Social and community values refers to knowledge and use of life skills, including communication, decision making, assertiveness, peer resistance, self-awareness, negotiation, friendship, self-esteem, advocacy for inclusiveness and nondiscrimination, and emotional intelligence.</td>
<td>Some Difference</td>
<td>Some Difference</td>
<td>Exactly</td>
<td>Some Difference</td>
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<td>2. Civic values</td>
<td>Civic values refers to knowledge and understanding of social and political concepts, such as democracy, justice, equality and citizenship. It may also include the ability to defend respect for rules and guidelines and propose modification appropriate to contexts in school, home and community.</td>
<td>Some Difference</td>
<td>Some Difference</td>
<td>Exactly</td>
<td>Some Difference</td>
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<tr>
<td></td>
<td>3. Mental health and well-being</td>
<td>Children develop positive coping mechanisms to respond to traumas and other negative environmental factors.</td>
<td>Some Difference</td>
<td>Some Difference</td>
<td>Exactly</td>
<td>Some Difference</td>
</tr>
<tr>
<td>3. Culture and the arts</td>
<td>1. Creative arts</td>
<td>Develop an understanding of different artistic processes, and learn how to create, perform, respond to, or evaluate works in one or more artistic forms: dance, music, theater, visual or media arts. Learn how to apply artistic processes to other areas of their learning and development, such as language development, math, science or critical thinking.</td>
<td>Some Difference</td>
<td>Some Difference</td>
<td>Exactly</td>
<td>Some Difference</td>
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<tr>
<td></td>
<td>2. Cultural knowledge</td>
<td>Increase knowledge of other cultures, as well as one’s own culture, and develop an appreciation of the similarities and</td>
<td>Some Difference</td>
<td>Some Difference</td>
<td>Exactly</td>
<td>Some Difference</td>
</tr>
<tr>
<td>Domains</td>
<td>Sub-Domains</td>
<td>Description of Sub-domains</td>
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<td></td>
<td>differences that exist between oneself and other cultures and how to respect, honor and live peacefully with others from diverse backgrounds</td>
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<tr>
<td>4. Literacy and communication</td>
<td>1. Oral fluency</td>
<td>1. Oral fluency is the extent to which a child speaks in the language(s) used in his/her environment.</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>2. Oral comprehension</td>
<td>2. Oral comprehension the extent to which a child understands the language(s) used in his/her environment.</td>
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<td>3. Reading fluency</td>
<td>3. Reading fluency refers to how easily a child can read, it includes speed, accuracy, and prosody (expression). It is sometimes measured by calculating the speed and accuracy with which a child reads. In order to read fluently children use strategies when encountering new words including decoding (in alphabetic languages), knowledge of work parts (such as prefixes and suffixes in Bahasa Indonesia and English, or characters in Chinese), context clues, and background knowledge.</td>
<td></td>
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<tr>
<td></td>
<td>4. Reading comprehension</td>
<td>4. Reading comprehension refers to how well a child understands what he or she is reading, sometimes measured by answering questions about a passage of text or retelling.</td>
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</tr>
<tr>
<td></td>
<td>5. Receptive vocabulary</td>
<td>5. Receptive vocabulary describes the words a child knows well enough to understand when reading or hearing them.</td>
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<tr>
<td></td>
<td>6. Expressive vocabulary</td>
<td>6. Expressive vocabulary describes the words a child knows well enough to feel comfortable using when speaking or writing.</td>
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<tr>
<td></td>
<td>7. Written expression/composition</td>
<td>7. Written expression and composition refers to how a child captures ideas through writing. Students may initially focus on producing the written symbols of the language (handwriting) and writing simple original texts and progress to writing for a variety of purposes (e.g., fiction, non-fiction)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>5. Learning approaches and cognition</td>
<td>1. Persistence and attention</td>
<td>1. Children show persistence through beginning and completing activities, especially challenging tasks. Skills related to studying can fall under this category.</td>
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<tr>
<td></td>
<td>2. Cooperation</td>
<td>2. Children interact in a variety of group settings, both contributing to the task at hand as well as learning from more knowledgeable peers and adults. It involves engaging in and completing tasks that require more than one person to complete.</td>
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<tr>
<td></td>
<td>3. Autonomy</td>
<td>3. Abilities related to working alone, knowing when and how to seek out resources to complete a task and persisting at that task.</td>
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</tr>
<tr>
<td>Domains</td>
<td>Sub-Domains</td>
<td>Description of Sub-domains</td>
<td>LGOs in Nepal’s Curriculum matching with the description of Sub-domains of LTMF</td>
<td>Level of Difference (behavioral verbs/terms) in between LGO and LTMF</td>
<td>Descriptions of Sub-domains not included in LGOs</td>
<td>LGOs not covered by descriptions of Sub-domains of LTMF</td>
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<td>--------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>4. Knowledge</td>
<td>4.</td>
<td>Includes factual, procedural and conceptual knowledge. Children recall previously learned facts, problem-solving procedures and draw on their conceptual understanding of a problem or topic. This knowledge serves as a foundation for more conceptually complex problem-solving tasks.</td>
<td>Exact Difference</td>
<td>above LGO and LTMF</td>
<td>Some Difference</td>
<td>Exactly</td>
</tr>
<tr>
<td>5. Comprehension</td>
<td>5.</td>
<td>Children construct meaning from data and material, including interpreting, classifying, summarizing and comparing.</td>
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<tr>
<td>6. Application</td>
<td>6.</td>
<td>Children apply prior knowledge to solve new and/or challenging problems.</td>
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<tr>
<td>7. Critical thinking</td>
<td>7.</td>
<td>Reasoning or judgment resulting from interpretation, analysis, or inference. Requires metacognition, which refers to one’s knowledge of one’s own cognitive processes (problem solving-strategies, deductions, generalizations, drawing on known facts to generate new knowledge, etc.).</td>
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</tr>
<tr>
<td>6. Numeracy and mathematics</td>
<td>1.</td>
<td>This subdomain focuses on numbers and number systems. Mastery of this subdomain refers to understanding how numbers work to represent magnitude, that they can be ordered and counted, and that numbers are organized in systems (e.g., natural numbers, whole numbers, integers, and rational numbers). This subdomain also involves knowing how to compute with different number systems with fluency and whether the outcomes of these computations are reasonable. The four operations (addition, subtraction, multiplication and division) are emphasized in this subdomain.</td>
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<td></td>
<td>2.</td>
<td>This subdomain focuses on the recognition of geometric shapes and on the recognition and development of patterns. For example, children may demonstrate mastery of sequencing patterns of numbers, shapes and objects or recognize and draw common two- and three-dimensional geometric figures.</td>
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<td></td>
<td>3.</td>
<td>This subdomain focuses on application of number knowledge and operations to solve problems across a range of content domains. In addition, mastery in this subdomain requires that students be able to communicate their understanding of problems, interpret data and data displays, and reason in problem solving.</td>
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<tr>
<td>Domains</td>
<td>Sub-Domains</td>
<td>Description of Sub-domains</td>
<td>LGOs in Nepal’s Curriculum matching with the description of Sub-domains of LTMF</td>
<td>Level of Difference (behavioral verbs/terms) in between LGO and LTMF</td>
<td>Descriptions of Sub-domains not included in LGOs</td>
<td>LGOs not covered by descriptions of Sub-domains of LTMF</td>
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</tr>
<tr>
<td>7. Science and technology</td>
<td>1. Scientific inquiry</td>
<td>1. Ability to ask questions, identify what knowledge is lacking and know how to acquire it. This includes knowledge of basic problem solving perspectives of science (including the scientific method) and the ways they can be applied.</td>
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<td></td>
<td>2. Life science</td>
<td>2. Describes the study of living things, life cycles, reproduction, heredity and interaction. Life science also covers interaction with the environment and ecosystems. Health is commonly included in life science.</td>
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<tr>
<td></td>
<td>3. Physical science</td>
<td>3. Includes the domains of matter, motion and energy. Physical science is the study of what things are made of, how they interact with one another and how energy may move from place to place.</td>
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<td></td>
<td>4. Earth science</td>
<td>4. The study of the earth in the solar system, geology, oceanography, weather and climate and resources.</td>
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<td></td>
<td>5. Awareness and use of digital technology</td>
<td>5. Digital technology refers to the variety of ways children interact with available information and communication technologies. At the primary level, children may have access to cellular telephones, computers, tablets, etc.</td>
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</tbody>
</table>
### Appendix F: Tool used for Teacher Training package - Analysis of Learning Outcomes of Nepal's Training Curriculum (Primary Level, I-V) against LMTF's Global Learning Domains Framework

<table>
<thead>
<tr>
<th>Domain</th>
<th>Sub-domain</th>
<th>Provision in Nepal's Training Curriculum (Primary Level, I-V)</th>
</tr>
</thead>
</table>
| 1. Physical Well-being          | 1. Physical health and hygiene | Need of cleaning the body and its parts (such as hair, nose, eye, teeth, tongue, fingers)  
Methods of cleaning (bathing, cutting nails, brushing teeth)  
Types of communicable diseases (common cold, dysentery, diarrhea, worms, chicken pox, tuberculosis, typhoid, jaundice, aids) and preventive measures (immunization: DPT, Polio, BCG, Hepatitis-B, use of boiled water)  
Prevention of drug abuse, smoking, drinking  
Developing habits of cleanliness among the students  
Safety measures                                                                 |
|                                 | 2. Food and Nutrition       | Importance of Balanced Diet (types of food, contents/elements of balanced diet, hygienic ways of preservation of food)  
Concept of food habit                                                                 |
|                                 | 3. Physical activity        | Basic skills of physical education (balance, walking, running, jumping, hopping, stretching, flexibility)  
PE games  
Skill involving activities in static condition (move, bend, pull, push, balancing, rolling, headstand)  
PT and games                                                                 |
| 4. Sexual health                |                             |                                                                                                                                          |
| 2. Social and emotional         | 1. Social and Community values | Concept of home and role and responsibilities of a family member                                                                                                           |
|                                 | 2. Civic values             | Heritage and their protection  
Prevention of gambling                                                                                                           |
|                                 | 3. Mental health and well-being |                                                                                                                                          |
| 3. Culture and the arts         | 1. Creative arts            | Clay work  
Songs, games, movement  
Printing work  
Drawing match-stick  
Singing, dancing, handicraft (mosaics, origami)                                                                                                                                 |
|                                 | 2. Cultural Knowledge       | National festivals and heritage and their protection                                                                                                                                                    |
| 4. Literacy and communication   | 1. Oral fluency             | Development of listening skill  
Development of speaking skill  
Teaching pronunciation  
Story telling  
Rhythmic activities                                                                                                                                 |


<table>
<thead>
<tr>
<th>Domain</th>
<th>Sub-domain</th>
<th>Provision in Nepal's Training Curriculum (Primary Level, I-V)</th>
</tr>
</thead>
</table>
|        | 2. Oral comprehension | - Guessing games  
- Story games  
- Action games |
|        | 3. Reading fluency | - Teaching pronunciation  
- Teaching poem  
- Teaching story  
- Teaching essay  
- Teaching biography  
- Teaching loud reading  
- Drills  
- Stress and intonation  
- Listening, speaking and singing with movement  
- Recognition and reading based on visual and auditory |
|        | 4. Reading comprehension | - Teaching poem  
- Teaching story  
- Teaching essay  
- Teaching biography  
- Reading of texts  
- Teaching comprehension  
- Read and point |
|        | 5. Receptive vocabulary | - Teaching vocabulary  
- Vocabulary and use of word class  
- Types of vocabulary |
|        | 6. Expressive vocabulary | - Aspects of vocabulary  
- Presentation of vocabulary |
|        | 7. Written expression/composition | - Techniques of teaching letter writing  
- Teaching of writing common documents  
- Practice of writing skill  
- Alphabet writing  
- Different writing exercises  
- Stages of writing  
- Teaching writing |
|        | 5. Learning approaches and cognition | 1. Persistence and attention | - Action game  
- Listen and do |
|        | | 2. Cooperation | - Strategies of learning (Cooperative learning)  
- Personal behaviour favourable to the class (be as a friend and helper of the students)  
- Planning and application of cooperative learning |
<table>
<thead>
<tr>
<th>Domain</th>
<th>Provision in Nepal's Training Curriculum (Primary Level, I-V)</th>
</tr>
</thead>
</table>
| 3. Autonomy                    | Strategies of learning (individualistic learning, competitive learning)  
Project work/field work report preparation and presentation  
Material collection by the students                                                |
| 4. Knowledge                   | Learning through sense  
Concept formation                                                                    |
| 5. Comprehension               | Reading comprehension  
Concept formation  
Story telling  
Report writing                                                                   |
| 6. Application                 | Transfer of learning (type and significance of transfer of learning)                                                      |
| 7. Critical thinking           | Personal behavior favorable to the class (logical and systematic expression, be innovative and use initiative)  
Problem solving                                                                  |

6. Numeracy and mathematics

<table>
<thead>
<tr>
<th>Sub-domain</th>
<th>Provision</th>
</tr>
</thead>
</table>
| 1. Number concepts and operations | Number and numerals  
Basic operations  
Simple practical problems on basic operations  
Number counting and recognition  
Addition and subtraction (problem solving and concept formation) |
| 2. Geometry and patterns | Identification and distinction of geometric figures (Plain figures: triangle, square, rectangle, circle & Solids: sphere, cylinder, cube, cuboids, cone, prism) |
| 3. Mathematics application | Graphs and charts (application)                                                                 |

7. Science and technology

<table>
<thead>
<tr>
<th>Sub-domain</th>
<th>Provision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Scientific inquiry</td>
<td>Exploration</td>
</tr>
</tbody>
</table>
| 2. Life science    | Classification of living beings  
Ecological system  
Planting and caring of trees/plants  
Maintaining clean environment  
Help provided by plants to the human beings                                      |
| 3. Physical science | Concept of heat and its effect                                                                    |
| 4. Earth science   | Natural calamities  
Energy around us  
Role of plants and animals for balancing eco-system in environment |
| 5. Awareness and use of digital technology | Demonstration of modern technology to identify its role for development (radio, telephone, television, e-mail, internet, fax, computer) |
Appendix G: List of References

1. Toward Universal Learning, What every child should learn, Centre for Universal Education at Brookings and UIS, Feb 2013
2. Primary Education Curriculum, Grade 1-3, 2062, Government of Nepal, Ministry of Education and Sports, CDC, Sanothimi, Bhaktapur
3. Primary Education Curriculum, Grade 4-5, 2065, Government of Nepal, Ministry of Education and Sports, CDC, Sanothimi, Bhaktapur
4. Primary Teacher Training (In-Service) A Basic Curriculum for Primary School Teachers, MOES, NCED, Sanothimi.
5. Primary Teacher Training Curriculum (In-Service) Second Phase, MOES, NCED, Sanothimi, Bhaktapur.
6. Primary Teacher Training Curriculum (In-Service), Third Phase, MOES, NCED, Sanothimi, Bhaktapur.
Investigation of Grade-wide Objectives versus the Gaps identified in between LMTF’s Sub-domains and Level-wide General Objectives of Primary Level Curriculum

Context

A gap analysis was done in between the competencies as per the descriptions of the sub-domains of the Primary Level of the seven Domains of Global Learning Domains Framework proposed by the Learning Metrics Task Force (LMTF) and the Level-wide General Objectives (LGOs) of the Primary Level (Grade I –V) Curriculum of Nepal.

To accomplish that task, a Steering Committee, under the chairmanship of Executive Director of CDC and five thematic teams, comprising subject-wide specialists from CDC and external specialists, were formed then.

Since LMTF has described the sub-domains broadly according to the three stages of school education, viz. pre-primary, primary and post-primary, and not according to specific grades, it was decided then that it is just logical to present the findings of the analysis as per only the LGOs of Nepal’s curriculum. Hence, the final report of the gap analysis presented the gap existed in between the description of 31 sub-domains (Primary Level) and a total of 71 LGOs of eight subjects, viz. Nepali, Mathematics, Social Studies, Creative Arts, Science, Health, Physical Education and English of Primary Level Curriculum of Nepal.

However, during the dissemination of that report, some of the participants aired views that even though LGOs were found not mentioning objectives relating to particular aspects of LMTF’s descriptions of sub-domains, grade-wide Learning Outcomes (LOs)/Specific Objectives (SOs) of Nepal’s curriculum might have addressed them and if so, the range of gap between LTMF’s description of sub-domains and Nepal’s and LGO may not exist as presented in the report.

Nevertheless, this exercise of investigating the availability of any grade-wide LOs/SOs matching with the gaps presented in the previous report has been carried out without further debate on (i) if the LGOs are clear enough – without any ambiguity in their statements by expressing specifically and in measureable terms of the cognitive skills, psychomotor skills and attitudes to be developed by the students – in the direction to provide foundation for the development of grade-wide LOs/SOs; (ii) if the grade-wide LOs/SOs are consistent with the LGOs; and (iii) rationales of including grade-wide LOs/SOs beyond the statement of LGOs.

Process and Presentation

This section presents grade-wide LOs/SOs of all the subjects of Nepal’s Primary Level curriculum, which were not considered in analyzing the gaps in between LGOs and the description of LMTF’s sub-domains of the seven Domains in the previous report, but in this exercise are found to have some sort of relevance or match with those gaps.
In order to simplify the presentation, make it understandable and also keep coherent with the previous report, the blue highlighted number-wide gap descriptions of sub-domains presented in the previous report as per the Domains, like Gap 1: on physical well being, are copied and pasted here at the top of each of the Tables followed. And the sub-domains, descriptions of which were already presented in the previous report, as the ones matching – very much or to some extent – with Nepal’s LGOs are shaded dark in the Tables in this presentation.

The number of LOs/SOs found matching is not shown in percentages calculated from the total number of LOs/SOs of a subject in this presentation, as in the previous report, since this exercise is just to see if there are any LOs/SOs of any grade that match with the gaps identified earlier. It has been decided so because this investigation is not limited to LOs/SOs of just one grade, but to all the five grades and across all the seven Domains, and there are variations in the number of LOs/SOs according to grades. However, a Table has been presented in order to give a picture of the number of LOs/SOs existed in each subject for each grade.

The Tables for the investigation findings have been presented with the sub-domains of LMTF and subjects of Primary Level in rows and columns respectively. Any of the LOs/SOs of any grade of all the subjects found matching with the gaps is mentioned in the table, serial number-wide as per the grade, corresponding to the row of a sub-domain and under the column of that subject, e.g. if LO serial numbers 5 and 7 of the subject of Health in Grade 3 has some relevance with the Food and Nutrition Sub-domain of the first Domain Physical Well-being, then those are denoted as G3-5,7 and put in the column under the heading of Health on the row of Food and Nutrition. And, the sub-domains, which do not have any grade-wide LOs/SOs matching in any sense, are kept blank as they are in the tables.

Table 1: Number of LOs/SOs as per Subjects in Primary Level

<table>
<thead>
<tr>
<th>Grades</th>
<th>Nepali</th>
<th>Maths.</th>
<th>Social Studies</th>
<th>Creative Arts</th>
<th>Science</th>
<th>Health</th>
<th>Physical Ed.</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>27</td>
<td>30</td>
<td>16</td>
<td>22</td>
<td>15</td>
<td>22</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td>II</td>
<td>24</td>
<td>39</td>
<td>17</td>
<td>22</td>
<td>23</td>
<td>20</td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td>III</td>
<td>24</td>
<td>46</td>
<td>19</td>
<td>31</td>
<td>29</td>
<td>25</td>
<td>19</td>
<td>17</td>
</tr>
<tr>
<td>IV</td>
<td>25</td>
<td>49</td>
<td>27</td>
<td>41</td>
<td>31</td>
<td>25</td>
<td>20</td>
<td>16</td>
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<tr>
<td>V</td>
<td>24</td>
<td>41</td>
<td>27</td>
<td>40</td>
<td>31</td>
<td>25</td>
<td>20</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>124</td>
<td>205</td>
<td>106</td>
<td>156</td>
<td>129</td>
<td>117</td>
<td>91</td>
<td>90</td>
</tr>
</tbody>
</table>
The descriptions of sub-domains from this domain found not included in the LGOs of Nepal’s curriculum were the competencies related to (i) understanding how disease is acquired from the sub-domain of Physical health and hygiene; (ii) recognizing how food has an impact on mind and body functions; and eating right amount of food to maintain a healthy weight from the sub-domain of Food and nutrition; (iii) developing individual talents through sports and games from the sub-domain of Physical activity; and (iv) understanding basic concepts of human reproduction from the sub-domain of Sexual Health.

Gap 1: on physical well being

Table 2: Grade-wide LOs/SOs matching Gap 1-on Physical well being

<table>
<thead>
<tr>
<th>Sub-domain</th>
<th>Subjects and matching LOs/SOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Physical health and hygiene</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Food and nutrition</td>
<td></td>
</tr>
<tr>
<td>3. Physical activity</td>
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<td></td>
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<td></td>
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<tr>
<td>4. Sexual health</td>
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</tr>
</tbody>
</table>

In this Domain of Physical well-being, in relation to the gap (i) understanding how disease is acquired from the sub-domain of Physical health and hygiene, grade-wide LOs/SOs of the subject of Health in Grade IV is found to have included symptoms; causes of acquiring diseases; and ways to be safe from both the communicable and
non-communicable diseases; where as in Grade V, surprisingly symptoms of non-communicable diseases is not included.

And, in relation to the gap (iii) developing individual talents through sports and games from the sub-domain of Physical activity, although individual talents could be special, natural, hidden etc. and they could be of hundreds of types, from A to Z, related to all the human traits, LOs/SOs of the subject of Physical Education in Grades I, II, III and V have mentioned only role plays/dramatic plays/imitations of animals, and Grade IV has mentioned about acting under the area of Creative games.

### Gap 2: on social and emotional

The descriptions of sub-domains from this domain found not included in the LGOs of Nepal’s curriculum were the competencies related to (i) knowledge and use of life skills including communication, decision making, assertiveness, peer resistance, self-awareness, negotiation, friendship, self-esteem, advocacy for inclusiveness and non-discrimination, and emotional intelligence related to social and community values from the sub-domain of Social and community values; (ii) developing positive coping mechanisms to respond to traumas and other negative environmental factors from the sub-domain of Mental health and well-being.

<table>
<thead>
<tr>
<th>Sub-domain</th>
<th>Subjects and matching LOs/SOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1-25, G2-22, G3-22, G4-23, G5-22</td>
<td>G1-3</td>
</tr>
<tr>
<td>2. Civic values</td>
<td></td>
</tr>
<tr>
<td>3. Mental health and well-being</td>
<td>G4-8,9,10</td>
</tr>
</tbody>
</table>

In this Domain of Social and emotional, in relation to the gap (i) knowledge and use of life skills including communication, decision making, assertiveness, peer resistance, self-awareness, negotiation, friendship, self-esteem, advocacy for inclusiveness and non-discrimination, and emotional intelligence related to social and community values from the sub-domain of Social and community values, subject of Nepali has some communication skills included in grade-wide LOs/SOs in all the Grades I to V of Primary level.

And, Social Studies has LOs/SOs related to some of the social and community values included in Grades I, II, III and IV.
Also, in relation to the gap (ii) developing positive coping mechanisms to respond to traumas and other negative environmental factors from the sub-domain of Mental health and well-being, Social studies has some LOs/SOs related to coping with the negative environmental factors included in the Grades IV and V.

**Gap 3: on culture and arts**

The descriptions of sub-domains from this domain found not included in the LGOs of Nepal’s curriculum were the competencies related to (i) developing an understanding of different artistic processes, and learn how to create, perform, respond to, or evaluate works in one or more artistic forms: dance, music, theater, visual or media arts, and (ii) learning how to apply artistic processes to other areas of their learning and development, such as language development, math, science or critical thinking from the sub-domain of Creative arts; and (ii) increasing knowledge of other cultures, as well as one’s own culture, and develop an appreciation of the similarities and differences that exist between oneself and other cultures and how to respect, honor and live peacefully with others from diverse backgrounds from the sub-domain of Cultural knowledge.

Table 4: Grade-wide LOs/SOs matching Gap 3 - on Culture and art

<table>
<thead>
<tr>
<th>Sub-domain</th>
<th>Subjects and Matching LOs/SOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Creative arts</td>
<td>G1-16</td>
</tr>
<tr>
<td></td>
<td>G2-15</td>
</tr>
<tr>
<td></td>
<td>G3-15</td>
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<tr>
<td></td>
<td>G4-9,21</td>
</tr>
<tr>
<td></td>
<td>G5-9,20</td>
</tr>
<tr>
<td>2. Cultural knowledge</td>
<td>G1-7</td>
</tr>
<tr>
<td></td>
<td>G2-7</td>
</tr>
<tr>
<td></td>
<td>G3-7</td>
</tr>
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<td></td>
<td>G4-7</td>
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<tr>
<td></td>
<td>G5-7</td>
</tr>
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</table>

In this Domain of Culture and art, in relation to the gap (i) developing an understanding of different artistic processes, and learn how to create, perform, respond to, or evaluate works in one or more artistic forms: dance, music, theater, visual or media art, and (ii) learning how to apply artistic processes to other areas of their learning and development, such as language development, math, science or critical thinking from the sub-domain of Creative arts, although it seems a lot has been included in the grade-wide LOs/SOs of the subject of Creative Arts despite very brief statements in its LGOs, it has mentioned only construction of various items using different artistic processes under its Visual Arts area in all the Grades I to V of Primary level. And, there are some LOs/SOs related to Geometrical figures in Mathematics that can be related to Creative arts.
Also, the subject of Nepali has some LOs/SOs linked to development of drawing, acting and composition skills, which could be related to some extent to the sub-domain of Creative arts. Similarly, the subject of Social Studies has some LOs/SOs related to the sub-domain of Cultural knowledge.

Likewise, in relation to the gap (ii) increasing knowledge of other cultures, as well as one’s own culture, and develop an appreciation of the similarities and differences that exit between oneself and other cultures and how to respect, honor and live peacefully with others from diverse backgrounds from the sub-domain of Cultural knowledge, the grade-wide LOs/SOs of this subject under its Music area has included only knowledge and skills related to various aspects of music.

Gap 4: on literacy and communication

The descriptions of sub-domains from this domain found not included in the LGOs of Nepal's curriculum were the competencies related to (i) reading fluently including speed, accuracy, and prosody (expression), using strategies when encountering new words including decoding, knowledge of work parts (such as prefixes and suffixes), context clues, and background knowledge from the sub-domain of Reading fluency; (ii) understanding what he or she is reading, answering questions about a passage of text or retelling from the sub-domain of Reading comprehension; (iii) knowing words well enough to understand when reading or hearing them from the sub-domain of Receptive vocabulary; (iv) knowing words well enough to feel comfortable using when speaking or writing from the sub-domain of Expressive vocabulary; (v) capturing ideas through writing (expressions and composition) and producing the written symbols of the language (handwriting) and writing simple original texts and progress to writing for a variety of purposes (e.g., fiction, non-fiction) from the sub-domain of Written expression/composition.
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<tr>
<td>1. Oral fluency</td>
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<td>2. Oral comprehension</td>
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<td>3. Reading fluency</td>
<td>G1-11,13</td>
<td>G2-11,12</td>
<td>G3-11,13</td>
<td>G4-12</td>
<td>G5-12</td>
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<td>4. Reading comprehension</td>
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<td>composition</td>
<td>G1-17,18,23</td>
<td>G2-16,17,20</td>
<td>G3-16,17,20</td>
<td>G4-16,17,18,21</td>
<td>G5-16,17,20</td>
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<td>G1-15,16</td>
<td>G2-14,15,16</td>
<td>G3-10,11</td>
<td>G4-10,11,13</td>
<td>G5-10,12,13</td>
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<td>G1-5,15</td>
<td>G2-3,14,15</td>
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<td>G5-1,3,13</td>
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<td>G1-18,19,20,21</td>
<td>G2-17,18,19,20</td>
<td>G3-14,15,16,17</td>
<td>G4-14,15,16</td>
<td>G5-14,15,16</td>
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In this Domain of Literacy and communication, in relation to the gap (i) reading fluently including speed, accuracy, and prosody (expression,) using strategies when encountering new words including decoding, knowledge of word parts (such as prefixes and suffixes), context clues, and background knowledge from the sub-domain of Reading fluency, except for the subject of English, the subject of Nepali in its grade-wide LOs/SOs under Reading area has only included reading with correct speed (gati), punctuation (yati) and timing (laya) in all the grades, although the knowledge of word parts is included in the areas of speaking, writing and grammar. This could be a subject of debate if it is different from general understanding of “reading fluently”, which also include reading with expression, apart from speed and punctuation and using of strategies in reading.

There is nothing specific to comprehension is found as such regarding the gap in relation to (ii) understanding what he or she is reading, answering questions about a passage of text or retailling from the sub-domain of Reading comprehension, although retailling and reacting is included to some extent under the areas of Listening and Speaking in the subject of Nepali. But, the subject of English has LOs/SOs from Grade I to V in this regard.

In relation to gaps (iii) knowing words well enough to understand when reading and hearing them from the sub-domain of Receptive vocabulary, and (iv) knowing words well enough to feel comfortable using when speaking or writing from the sub-domain of Expressive vocabulary, both the subjects of Nepali and English have some grade-wide LOs/SOs on the uses of vocabularies under various areas, without mentioning specifically if they are Receptive or Expressive vocabularies. But, Nepali has mentioned that it is expected to have vocabulary repository of 1000, 1500, 2000, 2500, and 3000 words respectively in Grades I to V. However, in both the subjects, no specific statements are made in those LOs/SOs if they are to the level of understanding or comfort-ability.

And, in relation to the gap (v) capturing ideas through writing (expressions and compositions) and producing the written symbols of the language (handwriting) and writing simple original texts and progress to writing for a variety of purposes (e.g., fiction, non-fiction) from the sub-domain of Written expression/composition, both the subjects of Nepali and English have grade-wide LOs/SOs covering various skills mentioned under the area of writing. However, there are not much covered relating to expressions and compositions that would develop originality.
Gap 5: on learning approach and cognition

And so, the descriptions of sub-domains from this domain found not included in the LGOs of Nepal’s curriculum were the competencies related to (i) showing persistence through beginning and completing activities, especially challenging tasks from the sub-domain of Persistence and attention; (ii) interacting in a variety of group settings, both contributing to the task at hand as well as learning from more knowledgeable peers and adults, and engaging in and completing tasks that require more than one person to complete from the sub-domain of Cooperation; (iii) working alone, knowing when and how to seek out resources to complete a task and persisting at that task from the sub-domain of Autonomy; (iv) reasoning or judgment resulting from interpretation, analysis, or inference requiring meta cognition, which refers to one’s knowledge of one’s own cognitive processes (problem solving-strategies, deductions, generalizations, drawing on known facts to generate new knowledge, etc. from the sub-domain of Critical thinking.

Table 6: Grade-wide LOs/SOs matching Gap 5 on Learning approach and cognition

<table>
<thead>
<tr>
<th>Sub-domain</th>
<th>Subjects and matching LOs/SOs</th>
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<tbody>
<tr>
<td>1. Persistence and attention</td>
<td>G1-8</td>
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<tr>
<td>2. Cooperation</td>
<td>G1-8</td>
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<tr>
<td>3. Autonomy</td>
<td>G1-8</td>
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<tr>
<td>4. Knowledge</td>
<td>G1-8</td>
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<tr>
<td>5. Comprehension</td>
<td>G1-8</td>
</tr>
<tr>
<td>6. Application</td>
<td>G1-8</td>
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<tr>
<td>7. Critical thinking</td>
<td>G1-8</td>
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</tbody>
</table>

As found elaborations matching to some extent to other Domains’ sub-domains in some areas of various subjects, however, none of the grade-wide LOs/SOs of any grade and subject have anything specified in relation to the gaps(ii) persistence through beginning and completing activities, especially challenging tasks from the sub-domain of Persistence and attention, and (iv) reasoning or judgment resulting from interpretation, analysis, or inference requiring meta cognition, which refers to one’s knowledge of one’s own cognitive
processes problem solving strategies, deduction, generalizations, drawing on known facts to generate new knowledge, etc. from the sub domain of Critical thinking in this Domain of Learning approach and cognition.

However, there are a few LOs/SOs in the subjects of Nepali and English, which have some connections with the gaps(ii) interacting in a variety of group settings, both contributing to the task at hand as well as learning from more knowledgeable peers and adults, and engaging in and completing tasks that require more than one person to complete from the sub-domain of Cooperation, and (iii) working alone, knowing when and how to seek out resources to complete a task and persisting at that task from the sub-domain of Autonomy. And, those connections are only relating to learning from the peers and working in groups and alone.

**Gap 6: on numeracy and mathematics**

The descriptions of sub-domains from this domain found not included in the LGOs of Nepal’s curriculum were the competencies related to (i) understanding how numbers are organized in systems (e.g., natural numbers, whole numbers, integers, and rational numbers), and (ii) knowing how to compute with different number systems with fluency and whether the outcomes of these computations are reasonable from the sub-domain of Number concepts and operations; (ii) recognizing development of patterns and demonstrating mastery of sequencing patterns of numbers, shapes and objects or recognizing and drawing common two- and three-dimensional geometric figures from the sub-domain of Geometry and patterns.

**Table 7: Grade-wide LOs/SOs matching Gap 6-on Numeracy and mathematics**

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<tr>
<td>1. Number concepts and operations</td>
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<td>G1-2.1,2.2,2.3</td>
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<td>G2-2.1,2.2,2.3,2.5</td>
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<td>G3-2.1,2.2,2.3,2.5</td>
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<td>G4-2.1,2.2,2.3</td>
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<td>G5-2.1,2.2,2.3,2.4</td>
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<td>2. Geometry and patterns</td>
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<td>G1-1.2,1.3</td>
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<td>G3-1.2,1.3,1.4,1.5</td>
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<td>G4-1.1,1.3</td>
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<td>3. Mathematics application</td>
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</table>
In this Domain of Numeracy and mathematics, in relation to the gaps (i) understanding how numbers are organized in systems (e.g., natural numbers, whole numbers, integers, and rational numbers), and (ii) knowing how to compute with different number systems with fluency and whether the outcomes of these computations are reasonable from the sub-domain of Number concepts and operations, there are a few grade-wide LOs/SOs in the subject of Mathematics related to only number systems.

And, in relation to the gap (ii) recognizing development of patterns and demonstrating mastery of sequencing patterns of numbers, shapes and objects or recognizing and drawing common two- and three-dimensional geometric figures from the sub-domain of Geometry and Patterns, there are some LOs/SOs included relating to only geometrical patterns.

**Gap 7: on science and technology**

The descriptions of sub-domains from this domain found not included in the LGOs of Nepal’s curriculum were the competencies related to (i) studying of oceanography from the sub-domain of Earth Science; (ii) access to computers and tablets from the sub-domain of Awareness and use of digital technology.

| Table 8: Grade-wide LOs/SOs matching Gap 7-on Science and technology |
|-----------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Sub-domain                  | Subjects and matching LOs/SOs |
| 1. Scientific inquiry      |      |        |        |          |     |     |         |     |
| 2. Life science            |      |        |        |          |     |     |         |     |
| 3. Physical science        |      |        |        |          |     |     |         |     |
| 4. Earth science           |      |        |        |          |     |     |         |     |
| 5. Awareness and use of digital technology | G4-5 | G5-5 |        |          |     |     |         | G3-7 |

In this Domain of Science and technology, in relation to the gaps (i) studying of oceanography from the sub-domain of Earth Science, and (ii) access to computers and tablets from the sub-domain of Awareness and use of digital technology, the subjects of Nepali and English have some grade-wide LOs/SOs in Grades III, IV and V referring only to use of electronic means of communications.
Recap

Level-wide General Objectives (LGOs) are meant to be detailed/elaborated into grade-wide Learning Objectives/Specific Objectives (LOs/SOs) in a curriculum. For this, the depth and extent of detailing/elaborating of grade-wide LOs/SOs are based on LGOs. So it is not unusual to find many grade-wide LOs/SOs of almost all of the subjects that match with the descriptions of LMTF’s various sub-domains.

However, some of the grade-wide LOs/SOs of some subjects has gone to a great depth despite a brief statement in their LGOs (e.g. Creative Arts). And, also some LOs/SOs are not presented in an ascending order as per the grades (e.g. diseases in the subject of Health), consistently (eg. plays and acting in Physical education), included (e.g. social and community values in Social Studies) and so on.

Therefore, even though as it may seem that many of those grade-wide LOs/SOs are found to be falling into many of the sub-domains, they actually do not cover a major portion and to the extent of the depth or the degree of the scope sought by the descriptions of sub-domains. Consequently, they could not cater adequately to the extent so as to reduce the gaps mentioned earlier, which otherwise would decrease the range of gaps presented in the earlier report, as thought would address.

Nevertheless, because of every individual’s subjective judgments, different persons might have variations in their opinions in the considerations of the level of match in between the statements of LOs/SOs and descriptions of LMTF’s sub-domains. And so, differing views on the range of gaps existed in between the LGOs/LOs/SOs and the descriptions of the LMTF’s sub-domains are inevitable.

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